

First Steps in RTCA System Rapidly Nearing Completion

The preliminary phases of America's revolutionary new air navigation and traffic control system are moving rapidly toward completion, D. W. Rentzel, Administrator of Civil Aeronautics, has announced.

At the same time the Air Navigation Development Board is preparing to carry out the huge research and development program which must precede installation of the ultimate system planned for general use 12 to 15 years from now.

The new system, planned by the Radio Technical Commission for Aeronautics, will meet the common needs of military and civil aviation in the United States. Approved by virtually every branch of civil and military aviation, the program will prevent costly duplication of research and airway installations by military and civil agencies.

Many Omnidirectional in Operation.—Much of the equipment of the transition, or preliminary, phase of the program already is in operation. For example, 294 of the new-type very high frequency omniranges are now operating out of a total of 409 planned for eventual installation.

Assuming that funds are available, the program for the continental United States calls for completing the transition program in time for the 1953-54 winter season. The status of the program is as follows:

Status of Transition Program

	Now in operation	Program total
VOR (omnidirectional).....	294	409
Instrument landing system.....	92	320
High intensity approach lights.....	1	320
Airport surveillance radar.....	3	150
Precision approach radar.....	3	82
Distance-measuring equipment.....	3	731
Air traffic control towers.....	147	203
Air traffic control centers.....	26	30
Airways communications stations.....	396	418

The ultimate RTCA program will eliminate the schedule irregularities caused by bad weather which now plague the airlines and contract carriers alike, and permit clock-like operations regardless of any except the most extreme bad-weather conditions. At the same time, the new airway and traffic-control system will permit large-scale movement of military aircraft in time of emergency. The low capacity of our present airway system is a dangerous bottleneck in our national defense structure.

Board Planning Research.—The Air Navigation

Development Board, composed of representatives from the Air Forces, Army, Navy, and Civil Aeronautics Administration, has the task of planning the research needed for the complex devices of the transition and ultimate program. The actual research and development work will be carried out by existing private and Government laboratories through contracts let by the ANDB.

The ultimate program calls for ingenious electronic computers to provide each pilot with a reserved landing time at his destination before he even begins his flight from a distant field. His progress toward his destination will be checked continuously by the electronic "brains." If he gets behind or ahead of sched-

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Changes Stress Central Control Of CAA Policy

Completion of the organizational structure of the Civil Aeronautics Administration to emphasize centralization of responsibility was announced last month by Administrator D. W. Rentzel, along with names of personnel assigned to key posts.

The program and special staff offices in Washington now are responsible for seeing to it that clearly defined program plans and policies, standard operating procedures and practices, and objectives in terms of quality, quantity, and schedules, are developed and issued as directives to the field organization. Also, the several Washington offices are responsible in their respective program areas for evaluating the extent and effect of compliance with such directives by the Regions, and the efficiency, effectiveness, and need for uniformity among Regions in the execution of such directives.

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Airport Aid Act Procedures Further Streamlined

A general streamlining of procedures by granting CAA regional offices greater authority in carrying out the Federal Airport Act has been announced by D. W. Rentzel, Administrator of Civil Aeronautics.

The new policies, now in effect, are in line with the recent simplification of the regulations governing participation in Federal Aid Airport program, and will serve to speed up construction and cut down paper work on the Washington level.

Under the newly announced policy, all CAA regional offices were granted full authority to withdraw tentative allocations of Federal funds after 90 days in cases where local sponsors are either unwilling or unable to participate in the program. Previously the withdrawals of funds were made in Washington on the recommendation of the regional offices.

Another responsibility given to the regional offices was the approval of negotiated claims between local sponsors and contractors. This function also was formerly carried out in Washington.

While these operating functions will be assigned to the regions, uniform policy control will be maintained

by the Washington office.

Contractors on airport projects now certify that labor laws have been complied with where formerly the CAA district airport engineer was required to make such certification.

Communities participating in the Federal Aid Program will now know in advance what rent-free Government space will be required on airports being constructed or improved. The maximum required space now appears in the grant offer in which Federal funds are granted to participating communities.

On May 10, Mr. Rentzel pointed out, the regulations under which local sponsors participate in the program were liberalized, giving sponsors the freedom to make their own arrangements governing the purchase and delivery of aviation gas and oil. Local sponsors were allowed to award contracts under \$2,000 without competitive bidding. The limit on payment of grants to sponsors was raised from 85 to 90 percent and sponsors were relieved of the necessity of submitting evidence of title, itemized cost estimates, survey maps, and abstracts of bids.

"Segmentize" Scheduled Air Carriers For Mail Pay, Board Member Suggests

A suggestion that scheduled airlines be "segmentized" into "self-sufficient" and "public-service" routes for mail pay purposes recently was made by Harold A. Jones, member of the Civil Aeronautics Board before the San Francisco Advertising Club. The Board member said he advanced the idea "purely for the purpose of provoking comment."

The self-sufficient segments would be those capable of paying their own way, while the public-service segments would be those where governmental aid would be necessary to provide air transportation needed in the public interest.

Under the proposal, the air carrier would be paid a "fair service rate" for carrying the mail on the self-sufficient segments and would be charged "a fair sum" for the use of the national airways facilities on these routes. No subsidy would be paid and the carriers could keep any profits made on operations over these routes.

Over the public-service routes, the airlines would receive mail pay "based on the cost of furnishing mail service to this feeder-line portion of its system and a fair return on the capital used and usable." In addition, it would receive a cash subsidy, which would be paid in the interest of commerce and the national defense.

International Routes Included.—International air routes would also be segmentized. Routes "important to our foreign policy and national interest would be frankly and openly subsidized," Mr. Jones said. "The self-sufficient international routes would receive no Government assistance but would be expected to furnish public-utility service and to operate such portions of their systems as a public-utility company."

Some domestic trunk line systems could not now be segmentized, Mr. Jones said. "No matter how arranged, no portion of such a carrier system could be made self-sufficient in the foreseeable future," he continued. "Merger or consolidation with stronger systems would seem to offer some hope for such carriers."

"It is likewise obvious that none of the feeder lines are subject to segmentization since none of them, or any segment of them, have any hope of self-sufficiency in the immediate future."

Self-Sufficient System Called Possible.—Mr. Jones said that it would be possible to have a self-sufficient air transportation service which could survive without subsidy "if we wanted one."

"This transportation system would probably serve the 79 cities of over 100,000 population and approximately 50 cities of under 100,000 population," he continued. "It would be necessary, perhaps, to eliminate considerable duplicating service to these cities and to eliminate all service to about 300 smaller cities and towns."

"We could have an international air transport system entirely self-sufficient, carrying mail on a purely compensatory basis, able to survive depressions and relying on the Government for not 1 cent of subsidy. All we need to do to obtain this is to eliminate all international service except the service between a few of the larger traffic centers of Europe, Latin America, and the East."

"If we were to perform this surgery, a large part of our air fleet could be dispensed with and a large part of our flight personnel and maintenance personnel would be forced into other occupations. The effect of this on our national economy and national defense would be serious."

Expansion Demanded by Public.—"Whether we like it or not, we have an air transportation system largely expanded beyond the size of the system which would exist under free and unlimited competition, and chiefly because the people demanded such a system in the interest of commerce and the national defense," Mr. Jones said at another point. "Since

this system as a whole cannot exist on ordinary business profits, it must be either drastically reduced in size, or receive Government financial assistance."

The Board member reviewed the growth of the airline system since the passage of the Civil Aeronautics Act in 1938. When the act was passed, he said, 65 cities of over 100,000 population and 120 smaller cities had airline service, usually by one airline. Now 79 cities of over 100,000 population and 334 smaller cities are served. Almost all of the larger cities are served by two or more airlines and the airlines last year flew almost 10 times as many revenue passenger-miles as in 1939.

"This is a tremendous and unprecedented expansion for any industry in the space of 10 years," he said. "It simply could not have happened so soon under our ordinary American concept of free, unregulated competition."

Improved Service Costly.—"While the Nation is getting vastly improved airline service, the cost of the expanded service eats into profits," Mr. Jones continued. "An airline operating between New York and San Francisco, and serving no other cities, can make money at 4 cents a passenger-mile," he said. "However, as the feeder lines have shown, the cost of furnishing service to feeder line cities, where the number of passengers are very few, may be as high as 25 cents a passenger-mile."

In addition to the commercial importance of the expanded air transportation system, national defense considerations are vital because the air carriers provide an "auxiliary air force" of more than 1,000 transport planes, Mr. Jones declared.

The airlines of the United States employ approximately 84,000 people, of whom nearly 8,500 are flight personnel, Mr. Jones said. "I do not know how much it would cost the National Military Establishment to maintain and fly these airplanes and keep these pilots flying, but I am sure it would run into hundreds of millions of dollars," he said.

"Incidentally, the airline is also an instrument of national policy. It serves to knit closer together in time and space and nations of good will and the men of good will. I believe this to be more in the interest of a lasting peace than any meeting or series of meetings of high diplomatic representatives in Paris, London, or New York."

Teachers Studying Aviation At 96 Summer Workshops

Determined to keep ahead of their air-minded students, teachers this summer will bone up on aviation in 96 workshops, a record number, according to the Civil Aeronautics Administration.

CAA educationists in each region, and members of the CAA Washington aviation training staff, headed by Howard W. Sinclair, will assist colleges in conducting the workshops.

The workshops are designed to aid both elementary and high-school teachers in giving instruction on aeronautics, either as a subject in itself, or as it affects the content of other courses.

In many cases, teachers participating in the workshops will receive actual flight experience through arrangements made by the colleges with local flight service operators.

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D. W. Rentzel, Administrator

Ben Stern, Director

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Air Carrier Operations Reach Record Levels

International and overseas air carriers operated at record levels during the first quarter of 1949. Revenue miles flown during the quarter totaled 24,831,717 miles, versus 21,998,930 last year, up 13 percent. Revenue passengers carried increased 14 percent to 361,526 and revenue passenger-miles flown moved up 15 percent to 437,843,000 as against 380,833,000 in the first 3 months of 1948. Revenue passenger load factors also rose, averaging 54.5 percent compared with 52.8 percent last year.

As in the case of the domestic carriers, air cargo registered the largest proportionate gain, with air express rising 48 percent to 12,368,115 ton-miles and air freight increasing to 1,791,363 ton-miles from 670,087 ton-miles in the first 1948 quarter. Air express was the only traffic category in which the American flag carriers exceeded the domestic airlines.

The following table compares first quarter operations for 1949 and 1948.

First Quarter Operations—1949-48

Item	First quarter		Percent increase
	1949	1948	
Revenue passengers.....	361,526	317,639	14
Revenue passenger-miles (000).....	437,843	380,833	15
Passenger seat-miles (000).....	802,036	721,528	11
Revenue passenger load factor (percent).....	54.5	52.8
Express ton-miles.....	12,368,115	8,376,999	48
Freight ton-miles.....	1,791,363	670,087	167
Mail ton-miles.....	4,486,087	3,543,750	27
International parcel post ton-miles.....	271,627	31,521	762

First quarter figures revealed little change from 1948 in the regional distribution of United States carriers' international passenger business. Traffic to and from Caribbean and Latin American points represented by far the largest segment of their operations with the trans-Atlantic traffic second, and Alaskan-Pacific operations third.

International Passenger-Miles

Region	Revenue passenger-miles		Revenue passengers	
	Number	Percent	Number	Percent
Caribbean and Latin American.....	208,783,000	48	265,370	73
Trans-Atlantic.....	138,006,000	31	56,937	16
Alaska and Pacific.....	91,049,000	21	39,219	11
Total.....	437,843,000	100	361,526	100

CIVIL AERONAUTICS JOURNAL

Board Action Revokes Letter of Registration Of Standard Airlines

The Civil Aeronautics Board on June 21 ordered revocation of the Letter of Registration of Standard Airlines, a large irregular airline, for wilful and knowing violations of the Civil Aeronautics Act. The Board's order provides that Standard shall cease to engage in any form of air transportation 30 days from the date of the Board's order, and that Standard shall immediately cease and desist from any further violations of the Act.

In its first action revoking a Letter of Registration of a large irregular air carrier, the Board stated that such drastic action is necessary because Standard's course of action in the past "convinces us that no action short of an order of revocation will succeed in eliminating the illegal services which respondent has stubbornly persisted in conducting. Its deliberate purpose to violate section 401 (a) of the Act and section 292.1 of the Regulation, as revealed by the record, admits of no other conclusion."

Simultaneously, the Board announced that it was requesting the Department of Justice to institute criminal proceedings against Standard under section 902 of the Act. This section makes any person who knowingly and wilfully violates the Act or any requirement thereunder guilty of a misdemeanor, punishable by a fine of \$500 for the first offense and up to \$2,000 for any subsequent offense.

In taking this action, the Board pointed out that it had found all of Standard's violations to have been committed knowingly and wilfully. "Since such violations fall within section 902 of the Act, and Standard's violations are so flagrant," the Board stated, we are impelled to refer the matter to the Department of Justice in order to carry out our duties under the Act.

"Not only did the respondent fail to offer even the color of compliance with section 401 of the Act or to respect the conditions of its exemption," the Board added, "but it did not meet the requirements of other sections of the Civil Aeronautics Act from which it was not exempted by regulation 292.1, as amended on June 10, 1947."

The Board found, among other things, that Standard had operated, and held out to the public, during the period June 10, 1947, to September 20, 1948, air service between San Francisco and Los Angeles on the one hand, and New York, N. Y., on the other, in excess of that permitted by section 292.1 of the Economic Regulations, and that its operations were in violation of the provisions of section 401 of the Act. The Board also found that Standard had violated the provisions of sections 403, 404, 407 (a), 411, and 412 of the Civil Aeronautics Act.

The Board said, "We think it clear from all the evidence of record that respondent had complete knowledge of the requirements and limitations placed upon its operations as an irregular air carrier, and that this is not a case where inadvertent violations were committed by unsuspecting individuals despite their best efforts to comply with the necessary requirements. . . . Accordingly, we find that the violations heretofore discussed during the pertinent period were knowingly and wilfully committed by respondent."

"Failure to revoke its (Standard's) Letter of Registration and to apply all sanctions available for the prevention of further violations by it would make a mockery of the law, the enforcement of which has been entrusted to us by the Congress."

Standard Airlines, with headquarters in Long Beach, Calif., was issued a "Letter of Registration" as a large irregular air carrier by the Board on March 11, 1948.

Regulations of the Administrator Being Reprinted

The CAA has developed means by which texts of Regulations of the Administrator will be made readily available to the public, in the form of individual parts, through purchase from the Superintendent of Documents, United States Government Printing Office.

Under this new system, the various parts are issued in uniform format following their publication in the Federal Register.

Parts now available from the Superintendent of Documents, and prices per copy are as follows: Part 502, Dealers' Aircraft Registration Certificates, 5 cents; Part 503, Recordation of Aircraft Ownership, 5 cents; Part 504, Recordation of Encumbrances Against Specifically Identified Aircraft Engines, 5 cents; Part 505, Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts, 5 cents; Part 550, Federal Aid to Public Agencies for Development of Public Airports, 10 cents; and Part 560, Reimbursement for Damage to Public Airports by Federal Agencies, 10 cents.

(A list of Regulations of the Administrator is published on page 81 of this issue of the CAA JOURNAL.)

Propeller Industry Output At \$60 Million in 1948

The aircraft propeller industry's total output in 1948 was valued at \$60,399,000. Military shipments accounted for 63 percent of the total, civil shipments 22 percent, and other products and services 15 percent.

Shipments of propellers for civilian use totaled 23,004. The peak month was June with 2,573 propellers; December was the low month with 733.

Employment in the aircraft propeller industry remained relatively stable throughout the year. The peak month was January with 8,136, while the lowest figure was in March with 7,697 employees.

The month-by-month figures on civil propeller shipments by number and value were:

Month	Number of propellers	Value (in thousands of dollars)			
		Propellers	Parts	Other products	Total
Jan.	1,802	\$623	\$382	\$565	\$1,570
Feb.	1,638	493	360	372	1,225
Mar.	2,549	754	485	506	1,745
Apr.	2,557	786	480	1,066	2,332
May	2,523	759	339	896	1,994
June	2,573	770	347	517	1,634
July	2,091	711	212	1,036	1,959
Aug.	2,262	462	350	523	1,335
Sept.	1,888	520	417	962	1,999
Oct.	1,499	1,025	477	756	2,258
Nov.	889	742	357	559	1,658
Dec.	733	685	423	1,639	2,747
Total.	23,004	8,330	4,729	9,397	22,456

State Fair Gets Landing Strip

The first recorded landing strip at a State fair grounds for utilization by "Flying Farmers" is being constructed on the Kansas State fair grounds at Hutchinson for use during the annual State fair from September 18 to 24 this year.

September 20 has been designated as "Flying Farmer Day" and around 200 aircraft owned by flying farmers are expected to utilize the new landing facilities on that day.

CAA Approved Schools Total 2,774 for May; Postwar Peak Drops

The most recent report on Civil Aeronautics Administration approved schools shows that 2,774 were in operation during the month of May 1949. Of this number, 1,631 were flight schools only; 1,007 were flight and ground combined; and 136 were ground only.

At the beginning of the first postwar year, there were 403 CAA approved schools. The widespread interest in flying generated by World War II, combined with the impetus furnished by the GI training program resulted in a rapid expansion in the number of schools. By the end of 1946, the total had mounted to 1,557.

More and more schools were placed in operation during 1947 and the first part of 1948. The postwar peak for CAA approved schools in operation was 3,287 in July 1948. It is interesting to note that the peak postwar month for pilot certificate issuances occurred a year earlier—July 1947—and that training activity declined thereafter although the number of schools continued to advance.

A State-by-State tabulation of CAA approved flight and ground schools as of May 1949 shows California and Texas far in the lead with 231 and 230. Five other States had more than 100 CAA approved schools—Pennsylvania, New York, Florida, Kansas, and Washington. The complete data were as follows:

State	Total	Combined flight and ground	Flight only	Ground only
Alabama	52	0	51	1
Arizona	41	14	27	0
Arkansas	54	37	16	1
California	231	131	61	39
Colorado	45	24	20	1
Connecticut	26	23	3	0
Delaware	9	1	8	0
District of Columbia	1	0	0	1
Florida	121	89	27	5
Georgia	51	42	9	0
Idaho	36	2	32	2
Illinois	28	8	18	2
Indiana	30	4	24	2
Iowa	89	4	84	1
Kansas	115	0	113	2
Kentucky	13	2	11	0
Louisiana	33	1	30	2
Maine	27	17	10	0
Maryland	25	6	18	1
Massachusetts	69	26	42	7
Michigan	63	9	47	7
Minnesota	22	1	20	1
Mississippi	32	25	7	0
Missouri	78	27	46	5
Montana	2	1	1	0
Nebraska	78	2	72	4
Nevada	12	2	10	0
New Hampshire	18	18	0	0
New Jersey	66	28	38	0
New Mexico	3	1	2	0
New York	127	77	38	12
North Carolina	68	58	8	2
North Dakota	40	1	39	0
Ohio	83	5	77	1
Oklahoma	78	14	64	0
Oregon	64	10	52	2
Pennsylvania	173	18	152	3
Rhode Island	10	5	5	0
South Carolina	36	19	17	0
South Dakota	42	25	16	1
Tennessee	39	5	33	1
Texas	230	150	55	25
Utah	12	1	11	0
Vermont	12	7	5	0
Virginia	71	2	69	0
Washington	108	57	40	11
West Virginia	34	0	34	0
Wisconsin	39	5	34	0
Wyoming	28	0	28	0
Outside U. S. A.	10	3	7	0
Grand total	2,774	1,007	1,631	136

Mail Pay Rates Revised by Board To Meet Cost of Grounding Planes

The Civil Aeronautics Board has issued orders in its Big Four mail rate case involving American Airlines, Eastern Air Lines, Transcontinental & Western Air, and United Air Lines, revising temporary mail rates paid American, TWA, and United. The orders provide for lump-sum payments to TWA and United for stated periods, and payment to the three airlines of sums to compensate for losses incurred by the grounding of new aircraft. The Board has specified the amount of \$2,000,000, amortized over a 5-year period, as compensation for grounding costs to be paid in monthly sums of \$33,333, with payments to United and American to begin June 1, 1948, and payment to TWA to begin March 14, 1947.

The Board orders provide specifically:
American Airlines be paid on and after June 1, 1948, a monthly sum of \$33,333 until grounding costs have been amortized;

TWA be paid a lump sum of \$2,748,000 as additional mail pay for the period March 14, 1947-December 31, 1948, and monthly payments on and after January 1, 1949, of \$33,333 until grounding costs are amortized. The lump-sum payment includes \$719,000 for grounding costs since March 14, 1947, and the remainder of the lump sum is for break-even needs of TWA for the period;

United Airlines be paid a lump sum of \$2,902,000 as additional mail pay for the period January 1, 1948-December 31, 1948, and on and after January 1, 1949, a monthly sum of \$33,333 until cost of grounding has been amortized. The lump sum of \$2,902,000 includes \$233,000 for grounding costs from June 1, 1948, and the remainder of the lump sum is for break-even needs of United for this period.

Effects of Losses Noted.—In granting additional mail pay for TWA and United for break-even needs the Board said that the losses sustained by these airlines in the 18-month period ending December 31, 1948, have seriously impaired the ability of these carriers to obtain adequate financing which, in turn, tends to impede their progress toward more economical and efficient operation. The Board stated it does not believe that it is in the public interest to permit these large losses on such an important segment of our domestic air transport system to continue over an extended period during the pendency of permanent mail rate proceedings without further interim relief.

In its opinion the Board states that at the present time the cost of grounding new airplanes due to such

causes as design defects is an inescapable cost of doing business in the air transport business, is a peculiarity of the industry, and has been both unforeseeable and unavoidable. It was stated that there has been as yet, no satisfactory way to duplicate in the laboratory or in test flying the actual operating conditions and practices of regular air transport service. Moreover, the high standards of safety which must be maintained in the industry necessitate the grounding of new aircraft type upon evidence of a basic design defect in the aircraft.

Reimbursement Efforts Required.—The Board said, however, that "In computing grounding costs we will only consider those costs which a carrier has incurred without a legal right to reimbursement from other sources. We expect every carrier to aggressively pursue all causes of action against aircraft manufacturers for damages occasioned by the grounding of the aircraft. While payments have been obtained by certain carriers to correct defects in material and workmanship or defects in design, we are not certain that these payments extend to the full limit of the manufacturer's liability. We will require that the carriers establish to our satisfaction that they have taken all reasonable means to secure adequate reimbursement. Moreover, it is entirely possible that final service rates will be established for one or all of these carriers. If so, grounding costs will be allocated to the passenger, property, and mail services."

Beaver Island Application Denied

The Civil Aeronautics Board last month denied the application of Leslie D. Emery for air service of passengers, property, and mail between Charlevoix, Mich., and St. James, Beaver Island, Mich., on the grounds that the proposed service could be operated only at a comparatively high cost to the Government without any corresponding benefit to the public.

Revised Part 49 Covers Shipments of Explosives

Revised Part 49 of the Civil Air Regulations, dealing with the transportation of explosives and other dangerous articles by air will become effective July 20. In announcing the revision, the Civil Aeronautics Board said:

"Present Part 49 provides for the transportation by air of certain articles commonly classified as explosives or dangerous articles. Since the carriage of explosives and other dangerous articles is seldom accomplished entirely by air transportation, but generally is combined with some form of surface transportation to bring the items to the aircraft and to take them away after the air lift, it was necessary that applicable Civil Air Regulations governing the transportation of such cargo be coordinated with the Interstate Commerce Commission Regulations which regulate the carriage of such articles by the principal surface carriers. Thus, in promulgating Part 49 in 1945, the Board adopted the various classifications of dangerous

articles and the packaging and labeling requirements of the pertinent Interstate Commerce Commission Regulations as effective January 7, 1941.

"Generally the proposed new part differs from present Part 49 in the following manner: The part will base Civil Air Regulations on the provisions of current ICC regulations rather than those in effect on a particular date. It will distinguish between articles acceptable on aircraft carrying passengers and articles which may be carried in cargo-only operations. The revised part permits the carriage of an enlarged number of classes of articles in passenger-carrying aircraft. On cargo aircraft almost all of those substances authorized for shipment by rail express service may be carried. At the same time levels of safety have been raised by the prohibition of certain articles permitted by present Part 49 and by the imposition of more restrictive packaging requirements and quantity limitations."

Resort Airlines Awarded Certificate for 5 Years

The Civil Aeronautics Board last month granted a temporary certificate to Resort Airlines, Inc., to engage in foreign and overseas air transportation of persons, and their personal baggage, for a period of 5 years. The Board's order was approved by President Truman.

The Board's order would permit Resort to operate an air transportation service devoted exclusively to providing all-expense escorted tours between specific points in the United States and points in Mexico, Caribbean area, South America, and Canada.

On February 1, 1949, the Board, acting under the Civil Aeronautics Act, submitted its decision to the President, denying Resort Airlines the authority to operate. The President, acting in accordance with his statutory authority, subsequently advised the Board that "for reasons affecting our relations with foreign countries and in the interest of our national security, it is desirable and proper that Resort Airlines, Inc., be granted temporary authority to engage in foreign and overseas air transportation substantially in accord with the recommendation of the (Board's) examiner." Accordingly the Board entered its present order directing issuance of a temporary certificate authorizing Resort to engage in foreign and overseas air transportation, as advised by the President.

The routes authorized by the Board are as follows:

1. Between the coterminous points New York, N. Y., Philadelphia, Pa., Washington, D. C., Pittsburgh, Pa., Cleveland, Ohio, Detroit, Mich., Chicago, Ill., and Miami, Fla., and the intermediate points Mexico City, Mexico, Guatemala City, Guatemala, Merida, Mexico, Havana, Cuba, Nassau, Bahama Islands, Ciudad Trujillo, Dominican Republic, Port-au-Prince-Cap Haitien, Haiti, San Juan, P. R., St. Thomas and St. Croix, V. I., St. Johns, Antigua, Martinique, Port-of-Spain, Trinidad, Caracas, Venezuela, Willemstad, Curacao, and Kingston-Montego Bay, Jamaica; and
2. Between the coterminous points New York, N. Y., Philadelphia, Pa., Washington, D. C., Pittsburgh, Pa., Cleveland, Ohio, Detroit, Mich., and Chicago, Ill., and the intermediate points Ottawa, Ontario, Montreal, St. Jovite, Quebec, and Mont Joli, Quebec, Moncton, New Brunswick, Charlottetown, Prince Edward Island, St. Johns, Newfoundland, Halifax and Yarmouth, Nova Scotia, and St. John, New Brunswick.

CAB Approves Small Planes For Limited Use by Airlines

The Civil Aeronautics Board announced its approval for the use of single-engine aircraft, and small non-transport-type multi-engine aircraft, in scheduled air transportation of passengers under certain specific limitations.

In approving use of such equipment in scheduled air transportation, the Board pointed out that operations would be limited to day VFR (visual flight rules) conditions and that such operations would be further limited to a particular area or region whose topography is favorable to single-engine operation and to relatively short trips. The Board added that no IFR (instrument flight rules) operations or long overwater operations would be permitted with the single-engine or nontransport-type multi-engine aircraft in scheduled operations.

The Board said that in the course of its consideration of the so-called local feeder type of air carrier operations, it appears that the public interest might be served by operations conducted with modern single-engine aircraft or by small nontransport-type multi-engine aircraft.

Bonanza Airlines Gets Certificate In California-Nevada Service Case

The Civil Aeronautics Board on June 17 announced its decision in the so-called *Additional California-Nevada Air Service* case by issuing a temporary certificate of public convenience and necessity for a period of 3 years to Bonanza Airlines, Inc., and by amending the temporary certificate of Southwest Airways, Inc., a feeder air carrier, and Transcontinental & Western Air and United Air Lines, Inc., two trunk line air carriers, to provide more efficient air service in the California-Nevada area.

The Board also instituted a proceeding to determine if certain points now served by United would not be better served by Southwest, and in a supplemental opinion, disapproved a proposal to transfer certain points served by TWA to Arizona Airways, Inc., a non-operating feeder air carrier.

The Board said that a temporary certificate of public convenience and necessity should be issued to Bonanza Airlines, Inc., permitting the carrier to engage in the transportation of persons, property, and mail, for a period of 3 years between the terminal points Reno, Nev., and Phoenix, Ariz., via the intermediate points Carson City, Minden, Hawthorne, Tonopah, Death Valley (on a seasonal basis), Las Vegas, Boulder City, Kingman, and Prescott, subject to (1) a further showing that Bonanza has sufficient financial resources to provide such air transportation, and (2) the acquisition by Bonanza of all route authorizations held by TWA for air transportation between Las Vegas, Boulder City, Kingman, Prescott, and Phoenix.

Southwest Certificate Amended.—The Board amended the certificate of Southwest Airways, Inc., for Route 76 as follows: To provide that the intermediate point (a) Santa Cruz be redesignated Santa Cruz-Watsonville; (b) Eureka be redesignated Eureka-Arcata; (c) Vallejo be redesignated Vallejo-Napa; and (d) Dunsmuir be redesignated Dunsmuir-Mount Shasta; (2) to authorize service to the additional intermediate points Paso Robles, Crescent City, and Oroville; (3) to designate Long Beach, Los Angeles, and Burbank coterminals; and (4) to require a scheduled service (a) to only four intermediate points on flights serving Los Angeles, Burbank, or Long Beach and San Francisco or Oakland; and (b) to only three intermediate points on flights serving Medford and Sacramento, Oakland, or San Francisco.

The Board also amended the certificates of public convenience and necessity held by TWA for Route 2 so as to authorize the transportation of local mail between Las Vegas and Los Angeles, and amended the certificate of United Air Lines for Route 1, so as to authorize service to Reno as an intermediate point on the west coast segment between Sacramento and Red Bluff, Calif.

Member Criticizes Restrictions.—Member Lee filed a concurring and dissenting opinion in which he agreed with the majority in all respects except that portion of the decision which continues in effect the "closed door" restrictions prohibiting TWA and United from engaging in local traffic between Las Vegas and Los Angeles. Mr. Lee stated that the restrictions of TWA and United should be modified to permit the carriage of local traffic between Las Vegas and Los Angeles on long-haul flights.

The Board also instituted a proceeding to determine whether Salinas, Calif., and Klamath Falls, Oreg., would be better served by Southwest rather than by United, and whether the authority of United to serve these points should be suspended.

In its supplemental opinion issued concurrently, the Board disapproved the proposed transfer of TWA's Route 38 to Arizona Airways. The Board said it had originally considered this proposal in 1947 and found the proposed purchase price of \$100,000 excessive, and that approval of the transfer at that time

would be a prejudgment of the issues in the *Arizona-New Mexico* case, in which Arizona Airways, then uncertificated, was applying for a feeder air carrier certificate. Accordingly, the Board deferred decision and suggested that after termination of that case, the parties might resubmit the proposed transfer. However, neither TWA nor Arizona Airways has submitted a proposal for varying the terms of the acquisition pursuant to the Board's suggestion. Furthermore, the Board found that the public interest would be better served if local air service between Phoenix and Las Vegas were provided in conjunction with the Las Vegas-Reno service by Bonanza Airlines rather than by Arizona Airways, pointing out that: "The traffic potential of this route is too light to justify service by two local feeder operators."

Pamphlet on Airport Design Gives Planning Information

Authoritative information on airport planning and design is contained in the new edition of "Airport Design," just issued by the Civil Aeronautics Administration.

The pamphlet covers the broad general principles of airport planning and design and emphasizes such important preliminary steps as the means of determining the size and type of the airport to be constructed, selection of site, as well as chapters on airport, lay-out, plans and specifications, and details of design. Chapters are also included on heliports and seaplane bases.

The new pamphlet contains drawings showing variety of model airport lay-outs for both large and small fields as well as charts and graphs on a number of related subjects. It discusses soils, paving, drainage, lighting, turfing, and other items important to sound airport construction.

"Airport Design" is priced at 30 cents per copy and is available from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

April Civil Engine Shipments Up 101 Over Previous Month

Civil engine shipments for April were 605, up 101 from the previous month. Horsepower output represented by the April shipments was 123,800, only slightly higher than the 120,000-horsepower figure of March. The combined value of civil engines and other products shipped during April was \$3,396,943—an 8 percent decline from March:

Comparative civil engine shipments for March and April show:

Engine Shipments—March-April		
	April 1949	March 1949
Number.....	605	504
Horsepower output (thousands).....	120.0	123.8
Value (thousands).....	\$3,397	\$3,687
Engines.....	1,120	1,164
Parts.....	2,150	2,226
Other products.....	127	297

Civil Aviation Highlights

	1949	1948
Airports recorded with CAA, June 1....	6,431	6,143
By type: 1		
Commercial.....	2,794	3,002
Municipal.....	2,156	1,934
CA Intermediate.....	132	165
Military.....	392	437
All others.....	937	605
Civil airports by class:		
Total.....	6,039	5,706
Class I and under.....	4,002	3,858
Class II.....	990	878
Class III.....	480	439
Class IV.....	361	341
Class V.....	131	109
Class VI and over.....	75	71
Total U. S. civil aircraft, June 1.....	93,301	97,745
Scheduled air carrier aircraft, June 1....	1,054	1,005
Civil aircraft production, April:		
Total.....	452	766
1- and 2-place models.....	132	461
3-, 4- and 5-place models.....	304	289
Over 5-place models.....	16	16
Certificates approved, April:		
Student pilots.....	3,945	13,866
Private pilots.....	2,157	6,877
Commercial pilots.....	629	796
Airline transport pilots.....	71	99
Mechanics (original certificates).....	558	921
Ground instructors (original certificates).....	152	266
Flight instructor ratings.....	230	364
Flight navigators.....	27	—
Flight engineers.....	1	—
Flight radio operators.....	12	—
Instrument ratings.....	136	128
Control tower operators.....	105	129
Dispatchers.....	18	83
Traffic control activity, April:		
Aircraft operations, CAA airport towers.....	1,521,086	1,728,196
Fix postings, CAA airway centers.....	827,752	777,620

Airport Operations

Washington National, May:		
Scheduled air carrier:		
Passengers departing.....	71,106	59,713
Passengers arriving.....	69,507	58,281
Aircraft arrivals and departures.....	11,730	15,033
Other aircraft arrivals and departures.....	5,016	4,434
San Francisco Municipal, April:		
Scheduled air carrier:		
Passengers departing.....	40,307	34,405
Passengers arriving.....	40,473	34,058
Aircraft arrivals and departures.....	6,110	6,110
Other aircraft arrivals and departures.....	5,100	4,563
Oakland Municipal, April:		
Scheduled air carrier:		
Passengers departing.....	5,951	3,918
Passengers arriving.....	4,967	3,671
Aircraft arrivals and departures.....	4,096	3,661
Other aircraft arrivals and departures.....	20,439	16,149
Miami International, April:		
Scheduled air carrier:		
Passengers departing.....	(1)	42,901
Passengers arriving.....	(1)	38,735
Aircraft arrivals and departures.....	7,939	5,990
Other aircraft arrivals and departures.....	10,875	8,932
Los Angeles Municipal, April:		
Scheduled air carrier:		
Passengers departing.....	48,609	(1)
Passengers arriving.....	46,029	(1)
Aircraft arrivals and departures.....	7,694	6,737
Other aircraft arrivals and departures.....	6,402	4,806

¹ Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public services, municipally owned and/or operated. CAA intermediate—Public emergency use, no services, CAA operated. Military—Public restricted, military operated. All others—(a) Public emergency use only, no public services, privately owned for personal use; (b) Public emergency use only, no public services, Government-owned Forest Service, etc.

² Not available.

Federal Airport Act History Gives Data on Legislation

A two-volume legislative history of the Federal Airport Act prepared by the Civil Aeronautics Administration makes available, in convenient form, all the printed Congressional records and documents which evidence the intent of Congress in passing that Act.

The first volume contains the text of the Senate bills, hearings, reports and debates; the second volume presents related House records. Text of the Act as finally passed and approved by the President is included in each volume.

The two-volume set, entitled "Legislative History of the Federal Airport Act," is on sale at \$4 per set by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Regulations

ER-145-----Effective June 16, 1949

Amended § 292.1 of the Economic Regulations to permit Large Irregular Carriers to file applications for individual exemptions any time during business hours on June 20, 1949.

SR-331-----Effective June 16, 1949

Extends the effective date of SR-323 which provides special operating rules for flights of scheduled air carrier aircraft in long-distance operations.

SR-332-----Effective July 1, 1949

Extends the effective date of SR-324 which provides for the issuance of a limited medical certificate with a propeller or appliance rating to an individual employed by a manufacturer or repair station.

Revised Part 49-----Effective July 20, 1949

Revises Part 49 of the Civil Air Regulations so as to enlarge the number of classes of explosives and other dangerous articles which may be transported by air.

Amdt. 20-3-----Effective August 15, 1949

Part 20 currently requires that an applicant for a pilot certificate with a private or commercial rating in airplanes shall have dual flight instruction in recovery from spins. In addition, an applicant for a pilot certificate with a private rating in airplanes is required to demonstrate his competency with respect to recovery from a right and left spin of at least one turn each. An applicant for a pilot certificate with a commercial rating in airplanes is required to perform competently a 2-turn spin in each direction and effect recovery with an error of not more than plus or minus 10°. With respect to a pilot limited by his rating to nonspinnable airplanes, the presently effective regulations require that, prior to making application for removal of such limitation, he shall have at least 3 hours of certified dual instruction on spinnable airplanes for the purpose of receiving instruction in recovery from spins.

This amendment eliminates spins from the pilot certification requirements and, in lieu thereof, provides for dual flight instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes. It is believed that the deletion of the spin requirement and the placing of greater emphasis upon the prevention of and recovery from stalls will result in greater air safety in two ways: (a) it will emphasize recognition of and recovery from stalls which, on the basis of available accident statistics, has proved to be the most dangerous maneuver to pilots; and (b) elimination of the required spin maneuver will act as an incentive for manufacturers to build and operators of schools to use spin-resistant or spin-proof aircraft.

In consideration of the foregoing the Civil Aeronautics Board amends Part 20 of the Civil Air Regulations, effective August 15, 1949:

1. By amending § 20.23 (a) to read as follows:

20.25 Aeronautical experience.

(a) *Powered aircraft.* An applicant for a pilot certificate with a private rating in powered aircraft shall meet the requirements of either (1) or (2), and (3) below. If the applicant meets the requirements of (2) but not (1), his certificate shall be appropriately endorsed by the Administrator.

(1) In spinnable aircraft he shall have at least 30 hours of solo flight time and at least 10 hours of dual instruction time given by a rated flight instructor.

(i) At least 2 hours of the dual instruction time shall have been after solo.

(ii) The dual instruction shall include instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

(iii) If the applicant is the holder of a private or commercial pilot certificate with a glider rating, he may receive credit for not more than 15 hours of the required solo flight time for the flight time had in gliders; or

(2) In nonspinnable aircraft he shall have at least 20 hours of solo flight time and at least 7 hours of dual instruction time given by a rated flight instructor.

(i) At least 2 hours of the dual instruction time shall have been after solo.

(ii) If the applicant is the holder of a private or commercial pilot certificate with glider rating, he may receive credit for not more than 10 hours of the required solo flight time for the flight time had in gliders; and

(3) In either spinnable or nonspinnable aircraft he shall have at least 3 hours of solo cross-country flight time which shall include at least one solo flight to a point not less than 50 miles distant from the point of departure with at least 2 full-stop landings at different points along the course.

2. By amending § 20.26 (a) (5) to read as follows:

(5) recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes;

3. By rescinding § 20.26 (a) (6).

4. By rescinding § 20.36 (a) (4).

5. By amending § 20.36 (a) (5) to read as follows:

(5) straight climbs, climbing turns, slips, maneuvers at minimum controllable speeds, and emergency maneuvers such as simulated forced landings and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

6. By amending § 20.40 to read as follows:

20.40 Aircraft rating competence.

(a) An applicant for any additional aircraft rating subsequent to the original issuance of a pilot certificate shall demonstrate competency in aircraft of the category and class and, if the aircraft has a maximum certificated take-off weight of over 12,500 lbs., of the type for which the rating is sought.

(b) A pilot limited by his rating to nonspinnable aircraft, when applying for removal of this restriction, shall have had at least 30 solo hours, and shall have had at least 3 hours of certified dual instruction in spinnable aircraft which shall include instruction in recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

(c) A pilot limited by his rating to gliders, when applying for a pilot rating in powered aircraft, shall meet the aeronautical knowledge, experience, and skill requirements appropriate to the pilot rating sought.

Amdt. 43-7-----Effective July 21, 1949

Part 43 currently requires that any parachute carried on an aircraft for emergency use shall be of an approved type which has been packed within the past 60 days. In view of the fact that the chair-type (canopy in back) parachute is installed in such a manner that it is completely recessed in the back of the seat and is thus protected from the wear to which other types of parachutes are subjected, it is believed that safety will not be adversely affected by extending the mandatory period for packing of such parachutes from 60 to 120 days.

This amendment provides that no pilot shall carry in an aircraft a parachute which is available for emergency use unless it is of an approved type, and (a) if it is of the chair type (canopy in back), it has been packed by a qualified parachute rigger within the preceding 120 days, or (b) if it is of a type other than a chair type (canopy in back), it has been so packed within the preceding 60 days.

In consideration of the foregoing the Civil Aeronautics Board amends Part 43 of the Civil Air Regulations effective July 21, 1949: By amending § 43.410 to read as follows:

43.410 Parachutes.

No pilot shall carry on an aircraft a parachute which is available for emergency use unless:

(a) it is an approved chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 120 days; or

(b) it is an approved-type, other than a chair-type (canopy in back), parachute which has been packed by a qualified parachute rigger within the preceding 60 days.

Amdt. 43-6-----Effective August 15, 1949

Part 43 currently requires that a student pilot, prior to making his first solo flight in spinnable airplanes, shall be given instruction in recovery from spins and stalls.

The spin requirement no longer serves any useful purpose as an operational requirement because of the elimination of spins from the pilot certification requirements. This amendment therefore deletes the spin requirement from the operation rules and in its place requires that a student pilot receive instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

In consideration of the foregoing the Civil Aeronautics Board amends Part 43 of the Civil Air Regulations effective August 15, 1949:

By amending § 43.51 (c) to read as follows:

(c) he has been given instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

Safety Orders

S-233 suspends for 6 months, pilot certificate of Francis Leon Barber, for operating an aircraft in acrobatic flight over a congested area at an altitude of less than 1500 feet above the surface and for low flying over an open-air assembly of persons (March 30).

S-234 revokes nonscheduled operating certificate of J. V. Lincoln, for failing to abide by the Civil Air Regulations and safe flying practices (March 30).

S-235 suspends for 6 months pilot certificate of Thomas A. Hellander, for operating an aircraft carrying a passenger when the aircraft had not been given an annual inspection within the preceding 12 months (April 1).

S-236 revokes pilot certificate of Manuel M. Franco, for operating an aircraft carrying a passenger and failing to determine the amount of fuel required to reach his destination (April 5).

S-237 suspends for 6 months pilot certificate of Anthony Harry DiLanardo, for operating an aircraft over water at a low altitude in close proximity to persons on a raft (April 8).

S-238 revokes pilot certificate of Charles Diffendall, for piloting an aircraft while he was in an intoxicated condition (April 8).

S-239 suspends for 6 months, student pilot certificate of Larry Clarino Madolara, for piloting an aircraft at a low altitude over an open air assembly of persons (April 26).

S-240 revokes private pilot certificate of William G. Saker, for failing to conform to the traffic pattern prescribed for the University of Virginia airport, for executing acrobatics at an altitude of less than 1,500 feet over said airport, for failing to conform to the traffic pattern at the Clifton Forge airport, Low Moor, Va., for engaging in acrobatic flight over an open air assembly of persons at the Clifton Forge airport, and for piloting an aircraft in acrobatic maneuvers when neither occupant of the aircraft was equipped with an approved parachute (April 29).

S-241 modifies Board's order No. S-199, to permit issuance of a pilot certificate to William P. Rayburn on August 19, 1949 (May 4).

S-242 revokes private pilot certificate of Peter Gifford, for flying an aircraft at an altitude of approximately 100 feet over a freight train and 200 feet over cars on a highway, for piloting an aircraft at night without displaying position lights, and for carrying a passenger in an aircraft at night without having made five take-offs and landings at night within the preceding 60 days (May 4).

S-243 amends order No. S-221 remanding case against Albert Paul Mantz and denies reargument, rehearing and reconsideration of order No. S-221, issued February 9, 1949 (May 5).

S-244 orders suspension of commercial pilot certificate of Claydell Frank Brown for 6 months, for piloting an aircraft over the campus of Texas A. & M. College and permitting his passenger to drop a gasoline filled glass jar to which had been attached a lighted fuse. The violation charge arose out of the action of Brown and a group of his fellow students who wished to perform a spectacular stunt by prematurely setting fire to a woodpile which had been prepared for a pre-game rally by a rival college. The examiner ordered that Brown's airman certificate be suspended for 3 months, to which the Administrator excepted, requesting a suspension. The Board found that revocation was not warranted by the facts of record, but increased the suspension to 6 months (May 9).

S-245 suspends commercial pilot certificate of John B. Bethel until he passes the written examination on the Civil Air Regulations for the original issuance of a commercial pilot rating, for piloting an unregistered and uncertificated aircraft carrying passengers, and for operating a multi-engine aircraft when he did not have a multi-engine rating (May 10).

Suspensions

Student pilot certificate of Franklin Thomas Ogden, Jr., Chanute, Kans., suspended 4 months from May 27, 1949, for executing dives, sharp pull-ups, and steep turns above a cement plant where he worked.

Private pilot certificate of Lemuel Claude Dixon, Denver, Colo., suspended 30 days from May 27, 1949, while taking an examination for a commercial pilot rating, he had in his possession and used material from which answers to questions appearing on the examination could be obtained.

Student pilot certificate of Dale Nelson Holacek, Hopkins, Minn., suspended 3 months from May 27, 1949, for low flying around the home of a friend, resulting in a crash.

Commercial pilot certificate of Lt. Charles J. Paquette, Jr., Springfield, Mass., suspended 6 months, beginning May 29, 1949, for buzzing Sherman Airport, Mansfield, Mass., at a low altitude.

Private pilot certificate of Tony Martin Papias, West Palm Beach, Fla., suspended 30 days from May 28, 1949, for having in his possession, while taking an examination for a commercial pilot rating, a paper with answers pertaining to questions asked on the examination.

Private pilot certificate of James P. McGraw, Spartanburg, S. C., suspended 6 months from May 28, 1949, for low flying over Spartanburg, and performing acrobatics at an altitude below 1,500 feet.

Student pilot certificate of Preston Stanley Cowling, Albion, Ill., suspended 90 days from June 2, 1949, for low flying over a farm. The aircraft was demolished when it struck a barn and crashed but the pilot escaped without injuries.

Private pilot certificate of Wilbur R. Page, Danville, Ill., suspended 3 months, for copying certain questions while taking an examination for a commercial pilot certificate.

Commercial pilot certificate of Stephens Henry Crowe, Los Angeles, Calif., suspended 15 days from May 27, 1949, for careless operation of an aircraft in attempting to take off from Burns Airport, Detroit, Mich., with a passenger. The aircraft crashed and was demolished.

Private pilot certificate of Donald James Mackley, Wilmington, Ill., suspended 6 months from May 28, 1949, for low flying along the edge of the city of Lockport, Ill., with a passenger. He was injured and his passenger killed when the aircraft crashed and was demolished.

Student pilot certificate of Harold Edwin Solomon, Oakland, Calif., suspended 30 days from May 27, 1949, for careless and reckless operation of an aircraft over a congested area of Wichita, Kans.

Private pilot certificate of Kenneth C. Baum, Eaton, Colo., suspended 30 days from May 3, 1949, for lack of carelessness. While temporarily blinded by the sun, he flew into a power line near Nunn, Colo.

Private pilot certificate of Arthur S. Queen, Miami, Fla., suspended 9 months from May 28, 1949, for low flying with a passenger over a congested area of Miami.

Private pilot certificate of John Blessing Ames, Philadelphia, Pa., suspended 90 days from May 29, 1949, for using unauthorized written notes while taking a written examination for a commercial pilot certificate.

Private pilot certificate of James Frank Phelps, Occoquan, Va., suspended 90 days from May 21, 1949, for using unauthorized written notes purporting to be a key sheet of specific answers to questions on a written examination he was taking for a commercial pilot certificate.

Commercial pilot certificate of Richard Clair Lightner, Shirleyboro, Pa., suspended 6 months from June 5, 1949, for low flying, failing to observe the traffic pattern on and in the vicinity of Valley Forge Airport, and for piloting an aircraft in such close proximity to other aircraft as to create a collision hazard.

Private pilot certificate of Maurice Wyman Tower, East Burke, Vt., suspended 6 months from June 4, 1949, for engaging in acrobatics with two passengers when all the occupants of the aircraft were not equipped with approved parachutes and for overloading the aircraft. The plane crashed while a landing was being attempted and the occupants were slightly injured.

Private pilot certificate of Robert Seick, Trenton, N. J., for 3 months from May 13, 1949, for operating an aircraft in a careless and reckless manner. He attempted to start the aircraft without having a competent operator at the controls and without having the wheels checked. The engine started at full throttle and the aircraft took off and remained airborne for approximately 2 hours over New Jersey, endangering air traffic as well as the residents of a thickly populated area, before it ran out of fuel and crashed.

Revocations

Private pilot certificate of Percy Arthur Bourcier, Natalia, Tex., revoked, effective June 4, 1949, for making dives and sharp pull-ups over the town of Comfort, Tex., at an altitude of approximately 25 feet.

Student pilot certificate of Travis L. McDonald, Seminole, Tex., revoked, effective May 26, 1949, for piloting an aircraft carrying a passenger while both he and the passenger were under the influence of intoxicating liquor.

Private pilot certificate of Andrew Nelson, Bay Shore, Long Island, N. Y., revoked, effective June 9, 1949, for low flying and engaging in acrobatic flight above a group of persons on a bathing beach.

Student pilot certificate of Armand Joseph Soucy, Arlington, Va., revoked, effective June 4, 1949, for performing acrobatic maneuvers at a low altitude over a congested area of Washington, D. C.

Student pilot certificate of Lester L. Johnson, Sewell, N. J., revoked for low flying with a passenger on a flight ending in a crash.

Commercial pilot certificate of Robert E. Lee, West Columbia, S. C., revoked, effective May 21, 1949, for permitting a student to operate an aircraft during the hours of darkness without displaying position lights. The flight ended in a crash in which the student was killed and Lee suffered injuries. Although the student was flying the plane, the examiner held Lee, a certificated flight instructor, was responsible as "pilot in command."

Temporary private pilot certificate of T. J. Patrick, Dothan, Ala., revoked, effective May 20, 1949, for low flying and acrobatic flight at an altitude of less than 1,500 feet. The flight ended in a crash landing when the aircraft struck a fence.

Private pilot certificate of Frank Ellis Gaines, Orlando, Fla., revoked, effective May 28, 1949, for low flying over Orlando.

Private pilot certificate of William Martin, Haines City, Fla., revoked, effective May 28, 1949, for low flying over Davenport, Fla., and at an altitude of less than 500 feet above persons and structures in the vicinity of Davenport.

Primary flying school rating of Charleston Aviation Corporation, Charleston, W. Va., revoked, effective June 6, 1949, for failing to provide sufficient certificated aircraft, a sufficient number of certificated mechanics, adequate hangar facilities, or adequate shop facilities.

Student pilot certificate of Robert G. Shaw, Gibbstown, N. J., revoked for low flying over Floodparks, N. J. While circling the area at a low altitude and while making a steep turn, he lost control of the aircraft and crashed within 200 feet of dwellings.

Private pilot certificate of Clyde Jenkins, Jr., Norfolk, Va., revoked, effective May 15, 1949, for piloting an aircraft in a careless and reckless manner in that, while carrying a passenger at an altitude of approximately 2,500 feet, he parachuted from the aircraft, leaving no competent operator at the controls. The plane crashed and the passenger was killed.

Airline Orders

E-2754 fixes a temporary mail rate for All American Airways over its entire system; orders that the proceeding remain open pending the determination of a final rate (April 28).

E-2755 fixes the final mail rate for Mid-Continent Airlines over its entire system (April 28).

E-2756 approves agreement between Challenger Airlines and Monarch relating to maintenance and overhaul of aircraft and engines, administration of traffic, sales, and station operations (April 28).

E-2757 amends order No. E-2171, dated November 9, 1948, in the matter of the temporary mail rate for Robinson Airlines over its entire system; orders that the proceeding remain open pending the determination of a final rate.

E-2758 dismisses complaint of American Airlines in the matter of certain rules and regulations concerning air transportation of passengers proposed by Capital Airlines (April 28).

E-2759 opinion and order issue temporary certificates to the Flying Tiger Line, Slick Airways, U. S. Airlines, and Airnews for the transportation of property, for a period of 5 years, between points in the United States (April 29).

E-2760 opinion and order approve agreement between Capital and National relating to interchange of aircraft (April 28).

E-2761 supplemental opinion and order in the Middle Atlantic Area case issue an amended certificate to Eastern for its route No. 6 (April 28).

E-2762 approves agreement between American and TWA relating to public address system service (April 28).

E-2763 approves agreement between TWA and Chicago and Southern Air Lines relating to ticket office lease (April 28).

E-2764 approves agreement between TWA and Challenger relating to exchange of passengers and cargo (April 28).

E-2765 approves agreement between Pan American and National relating to interchange of cargo traffic (April 28).

E-2766 approves agreement between Trans-Texas Airways and Chicago and Southern relating to interline passenger transportation (April 28).

E-2767 approves agreement between Braniff and Chicago and Southern relating to supply of gasoline and oil (April 28).

E-2768 approves agreement between Capital and Eastern relating to the availability of seating space (April 28).

E-2769 denies application of the city of Enid, Okla., for an exemption from § 401 (a) of the Act which would permit Braniff Airways to provide immediate service to Enid (April 29).

E-2770 grants, to a certain extent, the complaints of Capital and American concerning a tariff filed by TWA (April 29).

E-2771 orders the application of Chicago and Southern Air Lines, for authority to engage in air transportation between New Orleans and the terminal points Los Angeles and San Francisco, severed from the Southern Service to the West case (April 29).

E-2772 denies petition of the Air Line Pilots in the service of American Airlines for leave to intervene in the North Atlantic Route Transfer case (April 29).

E-2773 amends order No. E-2056, in the matter of the application of West Coast Airlines, for a change in service pattern on route No. 77 (April 29).

E-2774 denies application of Eastern Air Lines for an exemption order permitting free air transportation in connection with the Greater New York Fund Campaign (May 2).

E-2775 fixes a temporary mail rate for Pan American in its trans-Atlantic operations for the period January 1, 1946, through December 31, 1948; orders that the proceeding remain open pending the determination of a final rate (April 29).

E-2776 fixes a temporary mail rate for American Overseas over its entire system for the period January 1, 1946, through December 31, 1948; orders that the proceeding remain open pending the determination of a final rate (April 29).

E-2777 denies petition of Pan American-Grace Airways for reconsideration of their application and protest in the matter of non-stop service between Lima, Peru, and Rio de Janeiro, Brazil, proposed by Braniff Airways (May 2).

E-2778 orders investigation of, and suspends for 90 days, certain fares, rule, and routing for the air transportation of passengers proposed by United, Northwest, and Pan American (May 3).

E-2779 denies motion of Capital requesting that its application for an amendment of its certificate for route No. 55 be consolidated with that of Delta for an amendment of Delta's route No. 54 (May 3).

E-2780 grants the city of Hartford, Conn., leave to intervene in the Service in New England States case (May 3).

E-2781 orders Braniff, Eastern, National, and Pan American to make an analysis of through tickets and exchange orders actually used by passengers traveling between points in the United States and points in Latin America through the Miami and Havana gateways (May 3).

E-2782 orders the application of Western Air Lines assigned for public hearing in the matter of temporary suspension of service at El Centro, Calif., and Yuma, Ariz.; grants the city and county of Yuma leave to intervene in the proceeding (May 3).

E-2783 orders that certain exhibits of Pan American be withheld from public disclosure in the matter of investigation to determine whether Pan American in the conduct of its operation

between the United States and Saudi Arabia is in violation of any provisions of the Act (May 4).

E-2784 grants All American Airways permission to suspend service temporarily at Cambridge, Md., Ocean City, Md., and Rehoboth Beach, Del., and authorizes the carrier to omit Georgetown, Del., as a stop on route No. 97 until the airport at Georgetown is adequate for night operations (May 4).

E-2785 approves interlocking relationships existing as a result of the holding of certain positions by Laurence F. Whittenmore in the Railway Express Agency, South Manchester Railroad Company, and Union Freight Railroad Company (May 4).

E-2786 grants the Bay Area Ski Federation, the Mt. Diablo Ski Club, the Montclair Ski Club, the Marin Ski Club, and the Oakland Chamber of Commerce leave to intervene in the matter of the application of S. S. W., Inc., for a certificate of public convenience and necessity (May 5).

E-2787 grants the Post Office Department leave to intervene in the matter of extending the effectiveness of the temporary certificate of Empire Air Lines for route No. 78 (May 5).

E-2788 grants Alaska Coastal Airlines and Ellis Air Lines leave to intervene in the matter of the application of Totem Air Service for a certificate of public convenience and necessity (May 5).

E-2789 dismisses application of, and terminates exemption granted to, Leon R. Alsworth, an Alaskan air carrier (May 5).

E-2790 dismisses application of, and terminates exemption granted to, Stanley F. Chmielek, an Alaskan air carrier (May 5).

E-2791 dismisses application of, and terminates exemption granted to, Allen A. McGregor, an Alaskan air carrier (May 5).

E-2792 denies application of American Air Transport for an exemption pursuant to § 416 of the Act so as to provide a low cost class service between New York, N. Y., and San Juan, P. R.; denies the carrier's petition to consolidate the application in that of the enforcement proceeding, Docket No. 3405 (May 5).

E-2793 authorizes All American Airways to omit Athens, Ohio, on flights over segment 5 of route No. 97 which would arrive at Athens during the hours of darkness and authorizes them to suspend service at Chillicothe, Ohio, until the airport is made adequate for service (May 5).

E-2794 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Air Transport Associates, Arnold Air Service Aviation Corporation of Seattle, and Golden North Airways (May 6).

E-2795 opinion and order fix the mail rate for Western Air Lines over its routes within the continental United States and terminal points in Canada for the period on and after January 1, 1949 (May 6).

E-2796 opinion and order fix the mail rate for Inland Air Lines over its entire system for the period on and after January 1, 1949 (May 6).

E-2797 amends order serial No. E-2555, dated March 11, 1949, in the matter of the approval of an application of Northeast Airlines for a loan from the Reconstruction Finance Corporation (May 6).

E-2798 authorizes Western Air Lines to suspend service temporarily at Palm Springs, Calif., on route No. 13 from the date of this order up to and including October 31, 1949 (May 6).

E-2799 approves agreement between Mid-Continent Airlines and TACA relating to exchange of traffic (May 6).

E-2800 orders investigation of, and suspends for 90 days, certain fares, charges, rules, and regulations proposed by Braniff Airways (May 13).

E-2801 approves agreement between TWA and Lineas Aereas Mexicanas relating to interline traffic (May 6).

E-2802 approves agreement between Pan American and Canadian Pacific Air Lines relating to passenger traffic (May 6).

E-2803 grants National leave to intervene in the matter of the application of Expreso Aereo Interamericano for amendment of a foreign air carrier permit (May 9).

E-2804 grants Southwest Airways permission to suspend service temporarily at Coalinga, Calif., until September 30, 1949, or until the Coalinga Municipal Airport becomes adequate for safe operations (May 9).

E-2805 approves agreement between United and Monarch relating to furnishing of certain personnel and services to Monarch at Grand Junction, Colo. (May 10).

E-2806 approves agreement between United and West Coast Airlines relating to joint use of terminal services and facilities at Bellingham, Wash. (May 10).

E-2807 denies application of American for authority to suspend service temporarily at Jackson, Mich. (May 10).

E-2808 denies application of American for authority to suspend service temporarily at Abilene, Tex. (May 10).

E-2809 approves application of All American Airways for a loan from the Reconstruction Finance Corporation in the amount of \$800,000 (May 10).

E-2810 approves agreements between Northeast Airlines and Atlas Corporation in the matter of the furtherance of a loan from the Reconstruction Finance Corporation and for the issuance to Atlas Corporation of certain stock by Northeast (May 11).

E-2811 dismisses petition of the Clarksburg Chamber of Commerce in the matter of an amendment of the certificate of all American for route No. 97, so as to designate Clarksburg as a regular intermediate stop; orders the proceeding dismissed (May 11).

E-2812 approves agreement Nos. 2188-A, 2523-A, 2550-A, 2526-A, 2527-A, 2668-A, 2544-A, 2188-A2, between certain air carriers and foreign air carriers relating to interline traffic (May 11).

E-2813 orders investigation of, and suspends from May 15 to August 12, 1949, certain fares, rules, and regulations proposed by Continental Air Lines (May 12).

E-2814 orders investigation of, and suspends for 90 days, certain fares, charges, rules, and regulations proposed by National (May 13).

E-2815 denies petition of Trans-Texas Airways in the matter of extending the effectiveness of its certificate for route No. 82 and immediate rescission of the Board order and opinion (E-2680) insofar as it proposes to transfer portions of Trans-Texas' route No. 82 to Pioneer's route No. 64 (May 13).

E-2816 orders investigation of, and suspends for 90 days, certain rules and regulations proposed by Challenger Airlines, Chicago and Southern Air Lines, Delta, Inland, Monarch, and Western (May 13).

E-2817 grants the Flying Tiger Line temporary exemption from the provisions of § 401 of the Act and § 292.5 of the Economic Regulations, so as to permit them to engage in three round trip flights between the United States and Rome, Italy (May 12).

E-2818 grants Trans-Caribbean Air Cargo Lines temporary exemption from the provisions of § 401 of the Act and § 292.1

CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board. Both offices are located in the Department of Commerce Building, Washington 25, D. C.

Administration

New Air Navigation Program Rolling into High Gear—(June 2).

Procedure on Federal Airport Aid Gets Further Streamlining—(June 2).

CAA Reorganization, Top Staffing Completed; Emphasizes Centralized Policy Control—(June 2).

CAA Issues Pamphlet on Airport Design—(June 17).

Federal Airport Program Highlights—May 1-May 31—(June 23).

Pilots Warned Dramamine May Endanger Safe Flying—(June 23).

Teachers To Bone Up on Aviation at 96 Summer Workshops, CAA Reports—(June 24).

CAA and Air Forces Join in Air Defense Exercise—(June 24).

Address by D. W. Rentzel, Administrator of Civil Aeronautics, Before Second International Meeting of Royal Aeronautical Society and the Institute of Aeronautical Sciences, entitled, "New Aids for Air Navigation," Mayflower Hotel, Washington D. C.—(May 31).

Board

Temporary Rates for American, TWA and United (CAB 49-38) (May 26, 1949).

Latin American Route Amendment Case (CAB 49-39) (May 31, 1949).

Nonscheduled Foreign Air Transport to Cayman Islands (CAB 49-40) (June 6, 1949).

Scheduled Air Transportation of Passengers in Single-Engine and Nontransport Type Aircraft (CAB 49-41) (June 8, 1949).

Resort Airlines Receive Temporary Authority To Operate Air Tours (CAB 49-42) (June 10, 1949).

Public Hearing Ordered for Strato-Freight, Inc., Fatal Accident at San Juan, P. R. (CAB 49-43) (June 10, 1949).

Board Announces Public Hearing on Communications Equipment and Facilities for Long Over-Water Flight (CAB 49-44) (June 9, 1949).

CAB Denies Additional Charlevoix-St. James, Mich., Air Service (CAB 49-45) (June 13, 1949).

Additional California-Nevada Service (CAB 49-46) (June 17, 1949).

March 1948 Airline Traffic Survey (CAB 49-47) (June 20, 1949).

CAB Revokes Operating Authority for Standard Airlines (CAB 49-48) (June 21, 1949).

Mileage and Traffic Statistics for March 1949 (CAB 49-49) (June 23, 1949).

of the Economic Regulations so as to permit them to engage in two round trip flights between the United States and Tel Aviv, Israel (May 12).

E-2819 dismisses complaint of Coastal Air Lines in the matter of certain fares, charges, rules, and regulations proposed by Eastern and National (May 13).

E-2820 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Braniff and Pan American (May 13).

E-2821 dismisses complaint of American in the matter of certain rates applicable from Los Angeles to Newark and New York contained on first revised page 36 of Domestic Air Express Official Airfreight Forwarder Eastbound Tariff No. 1 (May 13).

E-2822 approves agreement between Hawaiian Airlines and Inter-Island Steam Navigation Company relating to passenger tickets (May 16).

E-2823 approves agreement between United, American, and TWA relating to the purchase and erection of a ramp house (May 16).

E-2824 denies petition of Air America requesting that the Board reconsider and set aside its order serial No. E-2239, dated November 29, 1948, denying Air America's application for a temporary exemption under § 416 (b) of the Act, relative to air coach service (May 16).

(Continued on page 82)

Scheduled Air Carrier Operations

[Source: CAB Form 41]

International and Overseas: January-March, 1949, 1948

Operator	Revenue miles January-March		Revenue passengers January-March		Revenue passenger-miles (000) January-March		Passenger seat-miles (000) January-March		Revenue passenger load factor (percent) January-March	
	1949	1948	1949	1948	1949	1948	1949	1948	1949	1948
American Airlines.....	571,382	515,499	18,009	12,877	16,460	10,750	25,804	19,005	63.79	56.56
American Overseas Airlines.....	1,640,093	1,374,984	15,658	8,490	30,693	21,810	58,500	51,850	52.47	42.06
Braniff Airways.....	308,211	345,726	2,408	2,909	4,414	6,117	14,025	17,128	31.47	36.32
Chicago & Southern Air Lines.....	186,535	166,878	3,064	4,415	2,417	3,478	8,207	7,284	29.45	47.75
Colonial Airlines.....	187,200	187,320	3,340	3,906	3,901	4,062	8,813	10,460	38.80	38.83
Eastern Air Lines.....	151,637	78,119	14,024	5,386	4,093	1,636	7,305	3,595	56.03	45.51
National Airlines.....	1,446,584	1,014,500	7,491	5,600	14,751	11,750	33,732	24,192	43.73	48.57
Northwest Airlines.....										
Pan American Airways:										
Atlantic Division.....	2,988,829	2,822,947	24,347	22,245	57,059	49,491	90,541	86,354	63.02	57.31
Latin American Division.....	7,564,628	7,135,270	193,656	186,070	141,972	137,522	263,885	265,746	53.80	51.75
Alaska Operations.....	575,307	559,476	7,091	5,485	7,660	5,975	16,873	16,953	45.40	35.24
Pacific Operations.....	4,090,802	3,577,866	18,509	19,420	54,371	59,515	93,541	88,638	58.13	67.14
Pan American-Grace Airways.....	1,435,890	1,411,887	24,287	24,536	29,144	26,200	47,452	42,227	61.42	62.05
Transcontinental & Western Air.....	2,793,754	2,559,038	16,932	12,549	50,254	39,135	93,365	85,047	53.71	46.02
United Air Lines.....	519,227	432,000	6,128	3,032	14,267	7,276	22,252	14,025	64.12	51.88
Uraba, Medellin & Central Airways.....	25,912	41,216	815	719	270	240	413	665	65.38	36.09
Total.....	24,831,717	21,998,930	361,526	317,639	437,843	380,833	802,036	721,528	54.51	52.78
Index (1948=100).....	112.88	100.00	113.82	100.00	114.97	100.00	111.16	100.00	103.28	100.00

Ton-miles flown

Operator	Express January-March		Freight January-March		United States mail January-March		International parcel post January-March	
	1949	1948	1949	1948	1949	1948	1949	1948
American Airlines.....	0	0	316,422	318,427	32,123	19,748	0	0
American Overseas Airlines.....	1,112,723	464,567	0	0	346,524	339,730	78,970	8,318
Braniff Airways.....	0	0	44,507	0	3,480	0	0	0
Chicago & Southern Air Lines.....	0	0	70,592	24,307	2,391	329	196	0
Colonial Airlines.....	0	0	24,112	13,115	2,132	2,080	302	0
Eastern Air Lines.....	0	0	134,968	94,292	12,047	11,262	395	0
National Airlines.....	75,305	48,922	0	0	3,081	3,029	0	0
Northwest Airlines.....	25,074	9,145	1,047,888	215,874	540,814	215,804	0	0
Pan American Airways:								
Atlantic Division.....	2,080,444	1,216,953	0	0	573,957	642,750	70,889	7,261
Latin American Division.....	5,070,546	4,182,333	0	0	658,875	622,290	0	0
Alaska Operations.....	768,710	408,745	0	0	96,832	91,633	0	0
Pacific Operations.....	1,203,545	859,791	0	0	1,330,777	860,643	0	0
Pan American-Grace Airways.....	341,554	361,365	152,874	4,072	83,686	48,313	5,523	0
Transcontinental & Western Air.....	1,643,631	780,895	0	0	599,807	602,108	115,352	15,942
United Air Lines.....	35,436	31,629	0	0	199,561	84,031	0	0
Uraba, Medellin & Central Airways.....	11,147	12,654	0	0	0	0	0	0
Total.....	12,368,115	8,376,999	1,791,363	670,087	4,486,087	3,543,750	271,627	31,521
Index (1948=100).....	147.64	100.00	267.33	100.00	126.59	100.00	861.73	100.00

International and Overseas: March 1949

Operator	Revenue miles	Revenue passengers	Revenue passenger- miles (000)	Passenger seat-miles (000)	Revenue passenger load factor (percent)	Ton-miles flown			
						Express	Freight	U. S. Mail	International parcel post
American Airlines.....	194,156	7,576	5,847	8,996	65.00	0	121,245	13,080	0
American Overseas Airlines.....	593,291	6,594	13,153	22,112	59.48	409,399	0	114,025	32,006
Braniff Airways.....	134,971	1,049	2,008	5,982	33.57	0	19,250	1,362	0
Chicago & Southern Air Lines.....	122,523	1,869	2,092	6,056	34.54	0	22,803	893	36
Colonial Airlines.....	63,791	1,337	1,052	2,807	37.48	0	13,298	785	116
Eastern Air Lines.....	64,480	1,101	1,142	3,212	35.55	0	47,738	4,880	170
National Airlines.....	57,221	4,683	1,469	2,748	53.46	29,109	0	1,196	0
Northwest Airlines.....	506,686	2,713	5,329	11,903	44.77	5,173	405,758	160,740	0
Pan American Airways:									
Atlantic Division.....	1,125,821	10,833	24,206	34,113	70.96	774,205	0	216,116	25,740
Latin American Division.....	2,614,168	67,479	49,962	89,261	55.97	1,801,314	0	230,000	0
Alaska Operations.....	206,157	2,578	2,658	6,086	43.67	286,145	0	33,178	0
Pacific Operations.....	1,328,843	6,143	17,846	30,010	59.47	444,774	0	451,310	0
Pan American-Grace Airways.....	499,200	8,835	10,821	16,449	65.80	128,406	52,489	28,614	2,091
Transcontinental & Western Air.....	977,065	6,839	19,891	32,118	61.93	558,667	0	212,221	42,082
United Air Lines.....	228,000	1,963	4,711	9,651	48.81	11,566	0	80,595	0
Uraba, Medellin & Central Airways.....	9,312	296	98	144	68.06	4,032	0	0	0
Total.....	8,725,685	131,888	162,288	281,648	57.62	4,452,790	682,581	1,548,995	102,241

Domestic: Passenger-miles flown (total revenue and nonrevenue)

	January	February	March	April	Total
Trunk lines.....	436,938	440,903	541,986	585,751	2,005,578
Feeder lines.....	6,714	7,545	9,821	11,529	35,609
Territorial lines.....	4,326	3,799	3,794	4,404	16,233
Total.....	447,978	452,157	555,601	601,684	2,057,420

Regulations of The Administrator

(Through June 30, 1949)

Note: Parts marked with an asterisk (*) may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at the indicated prices. Date of publication of other Parts in the Federal Register and the prices of related issues of the Federal Register are shown in parentheses. Copies of the Federal Register may be obtained from the Superintendent of Documents. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk.

Part 405—Procedure of the Civil Aeronautics Administration. (Published as Part 651; September 11, 1946—Part 2, Section 2, 405.)

Amendment 1. (November 13, 1946. Out of print.)
Amendment 2. (December 4, 1946. Out of print.)
Amendment 3. (January 3, 1947. 15¢.)
Amendment 4. (January 7, 1947. 15¢.)
Amendment 5. (April 8, 1947. 15¢.)
Amendment 6. (April 30, 1947. 15¢.)
Amendment 7. (September 16, 1947. 20¢.)
Amendment 8. (June 5, 1948. 15¢.)
Amendment. (September 11, 1948. 15¢.)

Part 406—Rules of Practice Governing Proceedings to Alter Amend, or Modify Certificates. (Published as Part 652; March 27, 1947. 15¢.)

Part 407—Seizure of Aircraft. (February 19, 1949. 15¢.) (Supersedes Part 531, effective April 1, 1949.)

Part 450—Inter-American Aviation Training Grants. (Published as Part 690; May 21, 1948. 15¢.)

Part 501—Aircraft Registration Certificates. (April 30, 1947. 15¢.)

*Part 502—Dealers' Aircraft Registration Certificates. (5¢.)

*Part 503—Recordation of Aircraft Ownership. (5¢.)

*Part 504—Recordation of Encumbrances Against Specifically Identified Aircraft Engines. (5¢.)

*Part 505—Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts. (5¢.)

*Part 550—Federal Aid to Public Agencies for Development of Public Airports. (10¢.)

Part 555—Acquisition by Public Agencies for Public Airport Purposes of Lands Owned or Controlled by the United States. (January 9, 1947. 15¢.)

Amendment 1. (February 21, 1947. 15¢.)

Amendment 2. (April 1, 1948. 15¢.)

*Part 560—Reimbursement for Damage to Public Airports by Federal Agencies. (10¢.)

Part 570—General Regulations of Washington National Airport. (Published as Part 510; January 23, 1947. 15¢.)

Amendment 1. (December 30, 1948. Pt. 1 20¢.)

Amendment 2. (January 5, 1949. 15¢.)

Part 571—Aeronautical Rules for the Washington National Airport. (Published as Part 511; January 23, 1947. 15¢.)

Amendment 1. (January 5, 1949. 15¢.)

Part 600—Designation of Civil Airways. (June 28, 1947. 15¢.)

Amendment 1. (September 16, 1947. 20¢.)

Amendment 2. (December 3, 1947. 15¢.)

Amendment 3. (March 6, 1948. 15¢.)

Amendment 4. (April 27, 1948. 15¢.)

Amendment 5. (May 15, 1948. 15¢.)

Amendment 6. (June 29, 1948. 15¢.)

Amendment 7. (August 17, 1948. 15¢.)

Amendment 8. (September 30, 1948. 15¢.)

Amendment 9. (October 15, 1948. 15¢.)

Amendment 10. (October 21, 1948. 15¢.)

Amendment 11. (November 30, 1948. 15¢.)

Amendment 12. (December 4, 1948. 15¢.)

Amendment 13. (December 29, 1948. 30¢.)

Amendment 14. (February 2, 1949. 15¢.)

Amendment 15. (April 1, 1949. 15¢.)

Amendment 16. (May 5, 1949. 15¢.)

Amendment 17. (June 2, 1949. 15¢.)

Amendment 18. (June 23, 1949. 15¢.)

Part 601—Designation of Control Areas, Control Zones, and Reporting Points. (June 28, 1947. 15¢.)

Amendment 1. (September 16, 1947. 20¢.)

Amendment 2. (October 15, 1947. 15¢.)

Amendment 3. (October 23, 1947. Out of print.)

Amendment 4. (December 3, 1947. 15¢.)

Amendment 5. (March 6, 1948. 15¢.)

Amendment 6. (April 27, 1948. 15¢.)

Amendment 7. (May 15, 1948. 15¢.)

Amendment 8. (June 29—corrected July 16—1948. 15¢ each.)

Amendment 9. (July 9, 1948. 15¢.)

Amendment 10. (August 17, 1948. 15¢.)

Amendment 11. (August 31, 1948. 15¢.)

Amendment 12. (September 30, 1948. 15¢.)

Amendment 13. (October 15, 1948. 15¢.)

Amendment 14. (October 21, 1948. 15¢.)

Amendment 15. (November 30, 1948. 15¢.)

Amendment 16. (December 4, 1948. 15¢.)

Amendment 17. (December 29, 1948. 30¢.) (Corrected January 26, 1949. 15¢.)

Amendment 18. (February 2, 1949. 15¢.)

Amendment 19. (February 19, 1949. 15¢.)

Amendment 20. (April 1, 1949. 15¢.)

Amendment 21. (May 5, 1949. 15¢.)

Amendment 22. (June 2, 1949. 15¢.)

Part 609—Standard Instrument Approach Procedure. (March 19, 1948. 15¢.)

Amendment 1. (September 11, 1948. 15¢.)

Part 610—IFR Altitude Minimums. (November 19, 1947. 15¢.)

Amendment 1. (November 26, 1947. 15¢.)

Amendment 2. (April 3, 1948. 15¢.)

Part 625—Notice of Construction or Alteration. (June 26, 1948. 15¢.)

Part 635—Reproduction and Dissemination of Current Examination Materials. (Published as Part 532; January 19, 1943. Out of print.)

Scheduled Air Carrier Operations

(Continued on page 82)

Domestic: January-April 1949, 1948

Operator	Revenue miles, January-April		Revenue passengers, January-April		Revenue passenger-miles (000) January-April		Passenger seat-miles (000) January-April	
	1949	1948	1949	1948	1949	1948	1949	1948
Trunk Lines								
American Airlines.....	16,873,431	15,400,388	909,380	685,181	438,677	322,245	687,231	542,663
Braniff Airways.....	3,592,305	3,432,300	174,516	161,326	58,241	56,651	115,104	105,981
Capital Airlines.....	6,073,105	4,893,672	310,340	274,769	90,191	71,969	200,671	152,927
Chicago & Southern Air Lines.....	2,326,153	2,079,570	89,128	76,612	32,166	30,615	60,628	54,917
Colonial Airlines.....	1,091,519	761,184	48,344	33,537	13,049	9,458	22,891	15,930
Continental Air Lines.....	1,835,407	1,644,067	50,371	43,630	17,929	15,892	48,703	33,871
Delta Air Lines.....	4,207,329	4,322,021	170,336	142,323	75,091	59,969	122,733	119,533
Eastern Air Lines.....	17,929,976	16,666,561	716,932	649,229	359,481	367,614	600,403	588,453
Inland Air Lines.....	780,374	758,751	23,609	21,026	8,131	7,600	15,352	14,688
Mid-Continent Airlines.....	2,543,098	2,308,571	98,448	87,224	29,464	25,999	53,405	45,752
National Airlines.....	3,087,616	1,175,244	106,744	37,563	64,106	21,292	127,622	44,172
Northeast Airlines.....	1,094,576	937,186	80,191	70,108	15,097	13,042	34,522	31,382
Northwest Airlines.....	5,256,369	4,760,779	177,719	161,268	90,553	83,030	189,787	154,869
Transcontinental & Western Air.....	16,039,399	16,525,357	385,913	335,637	256,593	233,009	486,591	426,891
United Air Lines.....	15,362,086	17,514,391	580,328	478,258	338,589	277,984	541,962	443,434
Western Air Lines.....	1,924,491	1,981,533	84,222	83,746	31,338	32,192	64,062	61,928
Trunk total.....	100,017,234	95,161,575	4,006,521	3,341,437	1,918,698	1,648,591	3,371,667	2,837,326
Index (1948=100).....	105.10	100.00	119.90	100.00	116.38	100.00	118.83	100.00
Feeder Lines								
All American Airways.....	650,191	533,808	3,945	0	487	0	3,546	0
Challenger Airlines.....	527,094	419,320	8,029	4,435	2,197	1,024	10,763	8,806
Empire Air Lines.....	332,687	309,313	9,817	4,480	2,099	1,001	6,987	4,581
Florida Airways (operations ended Mar. 28, 1949).....	193,120	276,194	3,026	4,028	409	539	1,542	2,163
Los Angeles Airways.....	113,653	70,107	0	0	0	0	0	0
Monarch Air Lines.....	533,117	475,921	7,012	5,817	1,810	1,314	10,023	8,576
Piedmont Aviation.....	822,118	141,894	19,215	2,572	4,212	649	17,265	2,979
Pioneer Air Lines.....	1,204,555	806,083	29,785	21,911	8,073	5,698	29,083	19,382
Robinson Airlines.....	247,480	-	11,052	-	1,658	-	5,087	-
Southwest Airways.....	781,804	651,469	30,815	20,313	5,709	3,853	16,419	12,939
Trans-Texas Airways.....	801,956	439,414	10,449	3,497	2,592	782	16,841	9,228
West Coast Airlines.....	373,530	366,919	16,515	16,759	2,114	2,009	7,844	6,814
Wisconsin-Central Airlines.....	413,497	111,696	5,590	988	800	163	3,417	977
Feeder total.....	6,994,802	4,602,138	155,250	84,800	32,160	17,032	128,817	76,445
Index (1948=100).....	151.99	100.00	183.08	100.00	188.82	100.00	168.51	100.00
Territorial Lines								
Caribbean-Atlantic Airlines.....	214,114	130,659	32,117	25,735	2,327	1,599	5,276	3,255
Hawaiian Airlines.....	891,347	951,468	98,975	100,868	13,745	14,104	19,895	20,857
Territorial total.....	1,105,461	1,082,127	131,092	126,603	16,072	15,703	25,171	24,112
Index (1948=100).....	102.16	100.00	103.55	100.00	102.35	100.00	104.39	100.00
Grand total.....	108,117,497	100,845,840	4,292,863	3,552,840	1,966,930	1,681,326	3,525,655	2,937,883
Index (1948=100).....	107.21	100.00	120.83	100.00	116.99	100.00	120.01	100.00

Operator	Revenue passenger load factor (percent) January-April		Ton-miles flown					
			Express, January-April		Freight, January-April		United States mail, January-April	
	1949	1948	1949	1948	1949	1948	1949	1948
Trunk Lines								
American Airlines.....	63.83	59.38	1,513,939	1,707,197	9,740,417	5,634,161	3,074,090	1,927,386
Braniff Airways.....	50.60	53.45	240,059	279,510	318,785	344,080	349,016	298,774
Capital Airlines.....	44.94	47.06	473,445	649,947	2,041,000	1,308,525	332,462	256,905
Chicago & Southern Air Lines.....	53.05	55.75	157,904	203,100	157,894	154,477	179,704	134,412
Colonial Airlines.....	57.00	59.37	13,763	16,405	32,985	8,397	31,290	26,332
Continental Air Lines.....	36.81	46.92	28,574	30,418	102,795	63,564	65,678	51,598
Delta Air Lines.....	61.18	50.17	210,865	291,904	514,213	462,636	317,061	319,665
Eastern Air Lines.....	59.87	62.48	1,117,316	1,305,386	3,043,816	1,536,614	1,764,821	1,360,670
Inland Air Lines.....	52.96	51.74	20,456	15,118	31,435	16,281	38,157	34,650
Mid-Continent Airlines.....	55.17	56.83	54,809	56,466	98,822	73,285	100,669	84,149
National Airlines.....	50.23	48.27	166,541	203,466	398,450	299,379	219,012	67,219
Northeast Airlines.....	43.73	41.56	23,101	33,937	66,150	42,021	31,521	17,170
Northwest Airlines.....	47.71	53.61	461,329	529,466	1,491,577	447,948	773,310	702,240
Transcontinental & Western Air.....	52.73	59.27	1,410,464	1,871,772	3,792,589	2,769,691	3,024,825	3,374,086
United Air Lines.....	62.47	62.69	1,874,418	2,306,025	7,382,129	5,335,744	3,254,317	2,432,676
Western Air Lines.....	48.92	51.98	78,434	91,391	151,448	223,379	130,355	131,522
Trunk total.....	56.91	58.10	7,845,417	9,591,508	29,364,505	18,720,182	13,685,688	11,219,354
Index (1948=100).....	97.95	100.00	81.80	100.00	156.86	100.00	121.98	100.00
Feeder Lines								
All American Airways.....	13.73	-	11,497	8,641	0	0*	15,494	11,041
Challenger Airlines.....	20.41	11.63	14,564	4,161	25,241	9,774	14,010	6,441
Empire Air Lines.....	30.04	21.85	3,947	1,880	0	0	6,206	5,694
Florida Airways (operations ended Mar. 28, 1949).....	26.52	24.92	660	1,538	0	0	1,812	2,506
Los Angeles Airways.....	-	-	0	0	0	0	14,439	5,248
Monarch Air Lines.....	18.06	15.32	5,235	3,392	19,915	19,709	7,544	6,797
Piedmont Aviation.....	24.40	21.79	8,637	771	12,391	568	9,894	1,464
Pioneer Air Lines.....	27.76	29.40	7,991	5,188	17,820	5,437	27,638	12,890
Robinson Airlines.....	32.59	-	0	-	5,461	-	4,668	-
Southwest Airways.....	34.77	29.78	9,821	7,504	32,086	21,773	16,134	12,661
Trans-Texas Airways.....	15.39	8.47	5,020	1,509	2,873	709	20,938	4,759
West Coast Airlines.....	26.95	29.48	2,787	2,869	0	0	3,007	4,161
Wisconsin-Central Airlines.....	23.41	16.68	4,564	1,291	0	0	5,452	1,593
Feeder total.....	24.97	22.28	74,723	38,744	115,787	57,970	147,236	75,255
Index (1948=100).....	112.07	100.00	192.86	100.00	199.74	100.00	195.65	100.00
Territorial Lines								
Caribbean-Atlantic Airlines.....	44.11	49.12	0	0	10,316	1,919	2,899	1,776
Hawaiian Airlines.....	69.09	67.62	44,207	43,029	145,297	180,300	16,892	11,776
Territorial total.....	63.85	65.13	44,207	43,029	155,613	182,219	19,701	13,552
Index (1948=100).....	98.03	100.00	102.74	100.00	85.40	100.00	145.37	100.00
Grand total.....	55.79	57.23	7,964,347	9,673,281	29,635,905	18,960,371	13,552,625	11,308,161
Index (1948=100).....	97.48	100.00	82.33	100.00	156.30	100.00	122.50	100.00

Cayman Islands Carrier Gets Board Certificate

The Civil Aeronautics Board has issued a foreign air carrier permit to Caribbean International Airways, authorizing nonscheduled foreign air transportation of persons, property, and mail for a period of 2 years between the Cayman Islands and Tampa, Fla. The Board's decision was approved by President Truman.

The Board said it did not consider it necessary to limit the scope of the authorization other than to specify that Caribbean International shall not operate nor hold out to the public expressly or by course of conduct that it operates over the route granted in this proceeding regularly or with a reasonable degree of regularity. The Board added that this condition should be read to prohibit the foreign air carrier from operating on any schedule, and is designed to allow that carrier to meet only the irregular and spasmodic needs for air transportation between Tampa and the Cayman Islands.

The Cayman Islands, a dependency of the British Colony of Jamaica, are approximately 530 miles south of Tampa, and 325 miles northwest of Jamaica. Transportation to the Islands is meager and no regular service of any sort by air is being rendered between the Islands and the mainland of the United States or Cuba. Caribbean-Atlantic, which presently owns and operates one 18-passenger Consolidated PBV amphibian aircraft, will purchase a second such aircraft should operations to and from the Islands so require.

First Steps in RTCA Plan Rapidly Nearing Completion

(Continued from page 73)

ule, he will be automatically notified by ground stations to "slow down" or "speed up" to the extent necessary to land at the proper moment.

A private-line radio system between plane and ground will permit instant automatic communication without interfering with other aircraft or ground stations, and much information now relayed by voice radio will be transmitted automatically and displayed in the aircraft and on the ground by simple symbols.

Radar To Watch Planes.—From take-off to landing, and even while taxiing on the airport, each plane will be under the watchful eye of radar and similar equipment. Probably through applications of television, the pilot will be able to "see" his own plane and all traffic and hazards about him on a pictorial display in his cockpit.

Ultimately, the system as a whole will operate almost entirely automatically, with ground controllers serving largely as monitors. The system will be flexible enough, however, so that human controllers can take over instantly in case of a break-down of equipment or unexpected hazard in the air.

The scientific principles on which these new devices will operate are known, but the devices themselves must be invented, developed, and tested through long research programs. This is the task which the ANDB is responsible for accomplishing.

The CAA will be responsible, through the Office of Federal Airways, for installing and operating much equipment of the transition and ultimate programs. At the same time, the CAA Experimental Station at Indianapolis will have the double responsibility of helping to develop part of the devices of the program and of testing and improving those already developed. To insure complete coordination between the two branches of the CAA, a liaison official will be appointed and continuing program of seminars established for key officials of the experimental station and Federal Airways.

Scheduled Air Carrier Operations

(Continued from page 81)

Domestic: April 1949

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Passenger seat-miles (000)	Revenue passenger load factor (percent)	Ton-miles flown		
						Express	Freight	United States mail
Trunk Lines								
American Airlines	4,583,460	286,014	129,293	186,335	69.39	360,190	3,173,502	784,260
Boeing Airways	943,270	51,931	17,171	30,078	57.09	60,902	96,635	86,320
Capital Airlines	1,709,104	107,551	31,918	58,506	54.56	104,265	627,845	79,363
Chicago & Southern Air Lines	627,490	26,904	9,823	16,202	60.63	40,362	49,552	47,123
Colonial Airlines	309,781	15,088	4,064	6,476	62.75	3,856	13,886	8,027
Continental Air Lines	484,876	15,499	5,404	13,899	38.88	7,920	30,182	19,011
Delta Air Lines	1,095,340	48,098	19,800	31,382	63.09	56,646	156,473	76,729
Eastern Air Lines	4,617,916	202,388	92,197	156,598	58.87	252,017	907,224	431,315
Inland Air Lines	228,707	6,132	2,293	4,506	50.89	4,840	8,891	9,508
Mid-Continent Airlines	689,564	28,985	8,651	14,481	59.74	15,121	31,981	27,004
National Airlines	813,189	26,560	14,930	32,595	45.80	47,558	101,721	53,874
Northeast Airlines	299,718	25,945	4,829	9,577	50.42	5,128	24,990	8,064
Northwest Airlines	1,492,179	59,625	31,987	54,806	58.36	111,638	457,529	217,898
Transcontinental & Western Air	4,319,250	124,478	78,898	130,479	60.47	338,616	1,227,130	824,878
United Air Lines	4,190,887	176,139	101,191	146,532	69.06	435,408	2,184,478	857,963
Western Air Lines	479,437	24,822	8,863	16,531	53.61	15,931	38,125	22,586
Trunk total	26,884,168	1,226,159	561,312	908,983	61.75	1,860,398	9,130,144	3,553,923
Feeder Lines								
All American Airways	205,596	3,136	394	2,584	15.25	4,908	0	4,566
Challenger Airlines	145,582	2,166	603	2,912	20.71	2,101	7,927	3,054
Empire Air Lines	90,463	3,052	663	1,900	34.89	1,213	0	1,686
Los Angeles Airways	28,936	0	0	0	—	0	0	4,096
Monarch Air Lines	113,325	2,334	597	2,580	23.14	1,938	6,829	2,092
Piedmont Aviation	217,332	6,321	1,399	4,564	30.65	2,311	5,852	2,451
Pioneer Air Lines	324,834	9,675	2,595	7,816	33.20	2,574	5,106	7,228
Robinson Airlines	60,187	3,327	503	1,155	43.55	0	1,595	1,370
Southwest Airways	199,864	9,923	1,811	4,197	43.15	2,851	8,722	4,121
Trans-Texas Airways	236,912	3,490	870	4,975	17.49	1,328	1,008	5,504
West Coast Airlines	97,212	5,594	720	2,041	35.28	965	0	899
Wisconsin-Central Airlines	124,634	2,303	334	1,090	30.64	1,403	0	1,729
Feeder total	1,874,877	51,321	10,489	35,814	29.29	21,682	37,039	38,796
Territorial Lines								
Caribbean-Atlantic Airlines	55,291	8,212	617	1,359	45.40	0	2,269	715
Hawaiian Airlines	234,746	27,243	3,734	5,233	71.35	12,158	38,052	4,800
Territorial total	290,037	35,455	4,351	6,592	66.00	12,158	40,321	5,515
Grand total	29,049,082	1,312,935	576,152	951,389	60.56	1,894,238	9,207,504	3,598,234

Official Actions . . . Civil Aeronautics Board

(Continued from page 79)

E-2825 authorizes Inland Air Lines to suspend service temporarily at Huron, S. Dak., on route No. 35, until July 15, 1949, or until airport facilities at Huron are adequate for service, whichever shall first occur (May 17).

E-2826 approves agreement between United Air Lines and Philippine Air Lines relating to lease of floor space (May 19).

E-2827 approves agreements between Pan American and Chicago and Southern Air Lines relating to interline traffic (May 19).

E-2828 approves agreement between Mid-Continent Airlines and British Overseas Airways Corporation, relating to tickets and exchange orders (May 19).

E-2829 approves agreement between Mid-Continent Airlines and Scandinavian Airlines System relating to tickets and exchange orders (May 19).

E-2830 grants the Postmaster General and National Airlines leave to intervene in the *Service to Newport News, Va.*, case (May 19).

E-2831 denies petition of National Airlines requesting that the Board reconsider order serial No. E-2751, so as to sever application of Eastern Air Lines from the *Service to Newport News, Va.*, case (May 19).

E-2832 denies petition of Trans-Caribbean Air Cargo Lines requesting exemption pursuant to § 416 (b) of the Act, so as to authorize certain carriers to engage in scheduled low cost air transportation of persons between San Juan, P. R., and New York, N. Y. (May 19).

E-2833 denies motion of Pan American for reconsideration of the Board's order serial No. E-2512, in the matter of the *North Atlantic Route Transfer* case (May 19).

E-2834 amends order serial No. E-490, as amended by order serial No. E-1509, in the matter of the application of Pan American for authority to suspend service temporarily between Fairbanks and Bethel, Alaska (May 19).

E-2835 denies application of A. R. Ferguson, d. b. a. Kotzebue Air Service, for a permanent certificate and/or an exemption order to engage in nonscheduled air transportation of persons, property, and mail between various points in western Alaska (May 19).

E-2836 grants Wisconsin Central Airlines permission to serve Land O'Lakes, Wis., on route No. 86 through the use of King's Gateway Airport after June 1, 1949 (May 19).

E-2837 grants Chicago and Southern Air Lines leave to intervene in the matter of the application of Linea Aeropostal Venezolana for a foreign air carrier permit (May 19).

E-2838 denies petition of the Port of New York Authority for leave to intervene in the *North Atlantic Route Transfer* case (May 19).

E-2839 notifies American Airlines that it may not serve New York, N. Y., on its routes Nos. 4, 7, and 25, through the use of Westchester County Airport (May 19).

E-2840 denies petitions of American, United, and TWA for reconsideration of order serial No. E-1905 in the matter of a temporary exemption granted to Capital Airlines to operate certain nonstop service (May 19).

E-2841 amends order serial No. E-2366 in the matter of a route segment of route No. 97 conditionally granted to All American (May 20).

E-2842 issues an amended temporary certificate to All American for route No. 97 (May 20).

E-2843 opinion and order issue amended certificates to Pan American and Northern Consolidated Airlines for their Alaska routes; approved by the President May 19, 1949 (Mar. 31).

E-2844 opinion and order issue an amended temporary certificate to Mid-Continent Airlines for route No. 80 (May 20).

E-2845 grants Cook Cleland Catalina Airways temporary exemption from the provisions of § 401 (a) of the Act, insofar as said provisions would prevent the carrier from engaging in foreign air transportation between Cleveland, Ohio, and points in Canada not served by certificated United States carriers (May 20).

E-2846 approves agreement between United and Pan American relating to engine overhaul and maintenance at Mills Field, San Francisco (May 23).

E-2847 grants Southern Airways permission to serve certain southeastern cities through the use of various airports on route No. 98, on or after May 25, 1949 (May 23).

E-2848 consolidates the proceedings in Docket No. 2870, in the matter of the mail rates for Inland Air Lines, with that of Western Air Lines, Docket No. 1347, the proceeding to go under Docket No. 2870 (May 20).

E-2849 opinion and order approve agreement between American Overseas and certain air carriers, foreign air carriers, and others, as members of IATA, relating to passenger fares in the North Atlantic (May 23).

E-2850 grants Southern Airways permission to serve Columbus, Ga., on route No. 98, through the use of Muscogee County Airport, on or after May 25, 1949 (May 24).

E-2851 grants Eastern leave to intervene in the matter of the application of Expreso Aereo Interamericano for amendment of a foreign air carrier permit (May 24).

E-2852 amends order serial No. E-871, so as to omit the suspension of service to Lufkin and Fort Stockton, Tex., since service has now been instituted at these points (May 24).

E-2853 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Pan American, Eastern and National (May 24).

E-2854 fixes a temporary mail rate for Pan American over its Latin American routes (May 24).

Scheduled Air Carriers Set New Safety Record

The Civil Aeronautics Board has announced that the combined domestic and international United States scheduled air carriers flew more passenger miles with greater safety in 1948 than ever before in the history of air transportation.

The total passenger miles flown by both domestic and international American air carriers exceeded 8 billion passenger miles, the Board disclosed. At the same time, the passenger fatality rate was only 1.3 per 100 million passenger miles flown, the lowest passenger fatality record for combined domestic and international scheduled air carriers ever achieved in any one year. The previous passenger fatality record low figure for combined domestic and international American air carrier operations was 1.6 in 1946.

In scheduled domestic air carrier operations only during 1948 a total of more than 6 billion passenger miles were flown with a passenger fatality rate of 1.3 per 100 million passenger miles. In international operations, United States flag carriers for the same period flew nearly 2 billion passenger miles with a passenger fatality rate of 1.0 per 100 million passenger miles.

United States Scheduled Air Carrier Operating
Record 1948

Type of operation	Total passenger miles flown	Passenger fatality rate per 100 million passenger miles flown
Domestic.....	6,227,931,000	1.3
International.....	1,961,794,000	1.0
Domestic and International.....	8,189,725,000	1.3

Shipments Gained in April But Value of Aircraft Down

April shipments of civil aircraft amounted to 452 planes valued at 8.3 million dollars. This was an increase of 13 percent in number over the 399 planes shipped during March but value fell 22 percent, due to a sharp decline in shipments of transport-type planes.

Of the 452 civil aircraft shipped during April, 436 were personal-type and 16 were transport-type. For the first 4 months of this year shipments of personal-type aircraft totaled 1,189 units, substantially less than the 2,210 units shipped during the first 4 months of 1948, whereas shipments of transport-type aircraft increased from 57 to 79.

Total airframe weight of civil aircraft shipped during the first 4 months of 1949 represented a decrease of 9 percent from the 2,576,800 pounds shipped during the first 4 months of 1948. The value of shipments of civil aircraft for the first 4 months of 1949, however, was substantially greater than for the comparable period in 1948.

The detailed figures on April civil aircraft shipments show:

Civil Aircraft Shipments, April-March 1949

	Number of units		Airframe weight (000 pounds)	
	April	March	April	March
Total.....	452	399	575.7	716.6
By type.....				
Personal.....	436	376	324.8	289.5
Transport.....	16	23	250.9	427.1
By number of places:				
1- and 2-place.....	132	113	71.2	60.9
3-, 4- and 5-place.....	304	263	253.6	228.6
Over 5-place.....	16	23	250.9	427.1

Air Regulations . on July 1, 1949

TITLE	No.	PART			MANUAL		
		Price	Date	No. of Amend-ments	Price	Date	No. of Amend-ments
Aircraft							
Airworthiness Certificates.....	1	\$0.05	5/10/49	1	None	None	
Type and Production Certificates.....	2	.05	7/1/46	4	\$0.10	8/1/46	
Airplane Airworthiness—Normal, Utility, Acrobatic, and Restricted Purpose Categories.....	13	.25	12/15/46	1	None	None	
Airplane Airworthiness.....	4a	.25	11/1/47	2	.45	7/1/44	2
Airplane Airworthiness Transport Categories.....	14b	Free	11/9/45	12	None	None	
Rotorcraft Airworthiness.....	6	.10	5/24/46	2	None	None	
Aircraft Airworthiness, Limited Category.....	9	.05	11/21/46	2	None	None	
Engine Airworthiness.....	13	.05	8/1/41		None	None	
Propeller Airworthiness.....	14	.05	7/15/42	1	.15	5/1/46	
Equipment Airworthiness.....	15	.05	5/31/46		No stock	7/1/38	
Radio Equipment Airworthiness.....	16	.05	2/13/41		No stock	2/13/41	
Maintenance, Repair, and Alteration of Aircraft, Engines, Propellers, Instruments.....	18	.05	9/1/42		.60	6/1/43	
Airmen							
Pilot Certificates.....	20	.05	11/10/48	4	None	None	
Airline Pilot Rating.....	21	.05	10/1/42	6	None	None	
Lighter-than-air Pilot Certificates.....	22	.05	10/15/42	5	None	None	
Mechanic Certificates.....	24	.05	7/1/43	13	None	None	
Parachute Technician Certificates.....	25	.05	12/15/43	5	None	None	
Traffic Control Tower Operator Certificates.....	26	.05	10/10/45	5	None	None	
Aircraft Dispatcher Certificates.....	27	.05	7/1/46	3	None	None	
Physical Standards for Airmen.....	29	.05	1/10/46		None	None	
Flight Radio Operator Certificates.....	33	.05	8/1/47	1	None	None	
Flight Navigator Certificates.....	34	.05	8/1/47	1	None	None	
Flight Engineer Certificates.....	35	.05	11/10/48	1	None	None	
Operation Rules							
Air Carrier Operating Certification.....	40	.10	7/10/46	3	None	None	
Scheduled Air Carrier Operations Outside Continental United States.....	41	.10	7/20/48	44	None	None	
Irregular Air Carrier and Off-Route Rules.....	42		6/1/49	1	.15	11/1/46	
General Operation Rules.....	43	.05	12/1/47	7	None	None	
Foreign Air Carrier Regulations.....	44	.05	11/1/47	1	None	None	
Commercial Operator Certification and Operation Rules.....	45	Free	6/1/49		None	None	
Operation of Moored Balloons.....	48	.05	9/28/47		None	None	
Transportation of Explosives and other Dangerous Articles.....	49	.05	7/1/45	1	None	None	
Air Agencies							
Airmen Agency Certificates.....	50	.05	4/30/46		.15	5/15/46	2
Ground Instructor Rating.....	51	.05	12/15/43	3	None	None	
Repair Station Rating.....	52	.05	10/1/42	1	No stock	2/41	
Mechanic School Rating.....	53	.05	8/1/42	1	Free	5/40	
Parachute Loft Certificates and Ratings.....	54	.05	1/21/43		.15	7/1/43	
Air Navigation							
Air Traffic Rules.....	60	.10	10/8/47	5	\$1.00	8/1/48	
Scheduled Air Carrier Rules.....	61	.10	6/15/48	44	None	None	
Notice and Reports of Aircraft Accidents and Missing Aircraft.....	62		5/1/49		None	None	
Miscellaneous							
Rules of Practice Governing Suspension and Revocation Proceedings.....	97	Free	1/1/47	1	None	None	

- 1 Certain aircraft may comply with the provisions of this part or part 4a.
 2 Special regulation SR-332.
 3 Special regulations SR-326, SR-331.
 4 Special regulation SR-325, Interpretation No. 1.
 5 Special regulation SR-325.
 6 Special regulations SR-325, SR-331.
 7 Combined with Flight Information Manual, Vol. 3, No. 2.
 8 Revised Part 49 will become effective July 20, 1949.

NOTE: Those parts and manuals for which there is a price are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk. Amendments, Special Regulations and free Parts are obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.; free Manuals from the CAA Office of Aviation Information, Dept. of Commerce, Washington 25, D. C.

Existing Latin American Service Improved

The Civil Aeronautics Board has amended the certificates for Latin American air service of Pan American Airways and Chicago & Southern Air Lines to provide improvements to existing services between the United States and Latin America. The Board's order was approved by President Truman.

Pan American, by the Board's order, is authorized to consolidate several route segments from United States gateways to points in Latin America into one linear route, making possible timesaving nonstop services between points on the various segments, and furnishing expedited service to these points with larger, faster equipment. Typical nonstops made possible by eliminating the necessity for stops at junction points of the various segments, are from New Orleans to Balboa, C. Z.; from Havana, Cuba, to Guatemala; from New York to Port of Spain, and from Caracas, Venezuela, to Belem, Brazil.

The Board authorized the substitution of Camaguey, Cuba, for Cienfuegos on Pan American's route

from Miami to Montego Bay, because there is no airport at Cienfuegos suitable for airline use.

Pan American's application for service from Bogota, Colombia, to Caracas, Venezuela, and from Barranquilla, Colombia, to Bogota was denied. Its application for an extension to Mexico City of its route to Merida, Mexico, was deferred by the Board pending further negotiations with Mexico concerning bilateral agreements.

Chicago & Southern was authorized by the Board to amend its Latin American route from Houston-New Orleans to Havana, Kingston, and Caracas, with another leg from Havana to Camaguey and San Juan, by removing Camaguey from the route, and making Kingston instead of Havana the branching off point to Caracas and San Juan. This change in Chicago & Southern's certificate will strengthen the airline's route from the standpoint of potential traffic and will offer considerable savings in equipment utilization and rotation.

Shifts Made in CAA Organizational Structure To Emphasize Centralization of Responsibility

(Continued from page 73)

On the other hand, the several Regions are each responsible for the execution of approved programs in their respective geographical areas in the most effective manner and at the lowest cost consistent with good administration.

Staff School Established.—Additional steps to insure a closely knit organization include establishment of a staff school, where CAA technical personnel will receive uniform training in good administrative procedures, and a decision to place representatives of the Washington office on regional boards for approving new types of aircraft.

Donald W. Nyrop, until now Executive Assistant, is designated as Deputy Administrator (Operations). Mr. Nyrop will be principal Deputy to assist in day-to-day supervision of all the Washington offices and principal field operating organizations. F. B. Lee will serve as Deputy Administrator in charge of program planning and evaluation activities.

CAA operations in the international sphere will be brought together under an International Region, with headquarters in Washington, headed by A. S. Koch. This region will have responsibility for activities under Public Law 647, which authorizes United States aid to foreign countries in operating air navigation facilities; under the International Civil Aviation Organization's program for joint support of facilities required in international air commerce; for CAA missions in foreign countries, and for operating certificates of United States flag carriers on major international routes.

Officers Are Named.—CAA staff offices and their directors now are as follows:

Federal Airways, responsible for building, maintaining and operating the Nation's system of air navigation and traffic control, headed by Charles F. Horne. Captain Horne has been on loan from the Navy as Special Assistant to the Administrator. His deputy will be John Beardslee, formerly CAA Regional Administrator at Honolulu.

Airports, responsible for the Federal Aid Airport Program and advisory services on other airport matters, continues under Phillips Moore. Edgar N. Smith, who has been Mr. Moore's deputy, becomes Deputy Regional Administrator at Atlanta. His duties will be redistributed within the Office of Airports.

Aviation Safety, responsible for airworthiness, airman competency, flight operations, medical and other aspects of safety, remains under E. S. Hensley.

Technical Development, responsible for development and testing of air navigation devices and other aviation products at the Indianapolis Experimental Station, is headed as in the past by Donald M. Stuart.

Aviation Development, a recently formed office which brings together the developmental functions of aviation education, air marking, personal flying promotion, and flight information, will, as already announced, be headed by Wiley Wright.

General Counsel, responsible for legal aspects of CAA activities, continues under direction of Richard E. Elwell.

Aviation Information, providing current information, publications, and audio-visual services, continues under Ben Stern.

Biographical Data

F. B. Lee, who continues as Deputy Administrator, joined the CAA in February 1946, as Program Planning Officer. A pilot since 1930 who has made solo

trips to Central America, Alaska, and Northern Europe, Mr. Lee was in naval aviation during the war. He specialized in instrument flying and radar training. A graduate of Harvard Law School, he practiced law in New York City for 10 years, starting in 1931. He was born in Woodstock, Vt., on August 2, 1906, and now lives in Washington, D. C.

Donald W. Nyrop, new Deputy Administrator, has been Executive Assistant to Mr. Rentzel since August 1948. He came to CAA from the Air Transport Association, where he had been International Operations Officer since his release from the Air Force in 1946 as a lieutenant colonel. He served in the Air Transport Command, first as deputy chief, Personnel Division, Domestic Wing, and later as executive officer for operations at ATC headquarters. Before going on duty in 1942, he had been Executive Assistant to the Chairman of the Civil Aeronautics Board, and a CAB attorney for 2 years. A native of Elgin, Nebr., he was educated at Doane College in that State and took his law degree at George Washington University while an auditor at General Accounting Office.

Capt. Charles F. Horne, the new head of Federal Airways, has specialized in electronics throughout his naval career, which began with graduation from Annapolis in 1926. Postgraduate work in communications engineering won him a master's degree from Harvard University, and his last Navy post was Deputy Chief of Communications. His assignments have included duty as executive officer of the U. S. S. *Sims*, the Navy's radio and sound experimental ship, and as communications officer of the amphibious forces during the campaigns from Tarawa to Okinawa. He was born in New York City 43 years ago, and now resides in Alexandria, Va.

A. S. Koch, head of the new International Region, was acting as Director of Program Planning and Evaluation during the reorganization period, after having been Assistant Administrator for Safety Regulation, and previously for Field Operations. In the Field Operations post he was responsible for international activities of CAA. A native of Chicago, Mr. Koch learned to fly in World War I, and served as a lieutenant colonel in the Air Corps during World War II. Mr. Koch is 56, and a resident of Hillwood, Va.

Phillips Moore, who continues as Director of the Office of Airports, is a native of Franklin, Ga., and a civil engineering graduate of Alabama Polytechnic Institute. He practiced his profession in Miami, in Georgia, and in Philadelphia before joining the CAA's predecessor agency in 1933. His present home is Falls Church, Va.

E. S. Hensley, whose appointment as Director of the Office of Aviation Safety was announced in April, is a 45-year-old native of Memphis, Tenn., who has been in aviation since 1927. He has been with the CAA and its predecessor agencies since 1937, except for 3 years' service in the Air Corps as a lieutenant colonel.

Wiley Wright was appointed last month to direct the Office of Aviation Development after having served since 1945 in Seattle as Assistant to the Regional Administrator for Personal Flying Development. He was born 53 years ago at Bowling Green, Ky., and learned to fly in World War I. He joined CAA in 1929, and was Superintendent of Civilian Pilot Training at Seattle when he was called to active duty in 1941. He was released as a lieutenant colonel after having directed the Air Force procurement region in Los Angeles.

CAA and Air Forces Cooperate in Exercises To Bolster Defenses

The Air Forces and the Civil Aeronautics Administration cooperated last month in training exercises to help make the United States secure from enemy bombing attacks.

"Operation Blackjack," a joint military-civil exercise covering the northeastern part of the United States, involved the radar tracking and interception of simulated enemy bombers. A number of U. S. A. F. aircraft representing "enemy" bombers flew courses prescribed by Headquarters, Air Defense Command, but which were unknown to the military-civil interception network.

The Air Force and CAA ground personnel worked together in separating the "enemy" attackers from normal air traffic moving in the area, which extended from Maine to Virginia, as far west as Detroit, and many miles to sea.

Aircraft Tracked by Radar.—A primary activity of the CAA in the project was to keep the Air Defense Command constantly advised, through a telephone system, of the movement of civil air traffic in the area. Simultaneously, the Defense Command radar operators tracked aircraft appearing on their scopes and attempted to locate the "unfriendly" bombers. When an unidentified aircraft appeared to be such a bomber, the interception network was alerted.

Under Maj. Gen. Gordon P. Saville, head of the Air Defense Command, Brig. Gen. Yantis Taylor commanded the air defenses in the "Blackjack" area. The CAA "Task Force Supervisor" was Joseph D. Blatt, CAA Planning Liaison Officer, who was in charge of the "Security Controllers" at the CAA Air Traffic Control centers in New York and Boston.

Effective Cooperation Important.—Fast, effective cooperation between the CAA's Air Traffic Control and the Air Defense Command would be critically important in case of enemy attack. A delay of even a few seconds in identifying fast-flying enemy bombers might fatally handicap intercepting Air Force fighters.

"These cooperative exercises will help accomplish three things," General Saville said.

"First, they will give the Defense Command radar crews valuable experience in tracking and identifying aircraft.

"Second, the exercises will pave the way for the CAA-Defense Command cooperation which is so important.

"Finally, the experience gained will help us work out the final details of a permanent system of positive aircraft identification and interception."

Air Transportation and Radio Provide Athens Quick Service

Utilization of air transportation and radio enabled the Civil Aeronautics Administration group in Greece to obtain a light gun for the Athens Airport from Kansas City in 62 hours, according to a report from K. Matucha, chief of the group.

When the light gun at the airport went out of service, a radiogram was sent by Aeronautical Radio circuits to New York, then to Kansas City by teletype to the CAA's Fifth Regional Office, asking that a light gun be sent to Athens by air on a loan basis. With Trans World Airline providing transportation at no cost to the Government, personnel of the Kansas City Regional Office were able to get the light gun to Athens in about 62 hours from the time that the message making the request was filed in Athens.

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